III. Foreign Policy Export Controls

1. Introduction

Export controls maintained for foreign policy purposes require annual extension according to Section 6 of the Export Administration Act of 1979, as amended (the Act). Section 6(f) of the Act requires that a report be submitted to the Congress for the controls to be extended. Section 6(b) of the Act requires the Department of Commerce to include in the report certain considerations[1] and determinations[2] on the criteria established in that section. This report complies with all the requirements set out in the Act for extending or imposing foreign policy controls.

The Department of Commerce is acting under the authority conferred by Executive Order No. 12924 of August 19, 1994 and continued by notice of August 14, 1995 and August 14, 1996. Therein the President, by reason of the lapse of the Act, invoked his authority, including authority under the International Emergency Economic Powers Act, to continue in effect the system of controls that had been maintained under the Act. Under a policy of conforming actions under the Executive Order to those under the Act, the Department of Commerce, insofar as appropriate, is following the provisions of Section 6 of the Act in extending controls.

All foreign policy controls in effect on December 31, 1996 are being extended. The action to extend the current controls is taken at the recommendation of the Secretary of State. As further required by the Act, foreign policy controls remain in effect for replacement parts and for parts contained in goods subject to such controls. The controls administered in accordance with procedures established pursuant to Section 309(c) of the Nuclear Non-Proliferation Act of 1978 likewise remain in effect.

Each chapter that follows describes a particular category of foreign policy controls and details modifications that have taken place over the past year.

Most of the statistical data presented in the report are based on fiscal year export licensing statistics. That data was generated from the Commerce computer automated system that is used to process and track export license activity. There are certain limitations in gathering data from the system that are due to the tabulating procedures used by the computer in accounting for occasional license applications that list more than one country of destination, or are amendments to approved applications. In addition, the data in the report are based on values contained in export licenses issued by the Department. They do not necessarily represent the values of actual shipments made against those licenses. In many cases, an exporter may ship only a portion of the value of an approved license.

Whenever worldwide statistical data was used, the figures are from calendar year 1995. Figures from 1996 were unavailable at the time the report was compiled.

In addition, please note the numbering system of the Commerce Control List (CCL). On March 25, 1996 Commerce published in the Federal Register a comprehensive revision of the Export Administration Regulations (EAR). As part of this revision, the CCL was also changed to accord with the numbering system of the European Union. Among other things, the unified numbering system aids enforcement officers. Since both the old and new regulations were in effect until December 31, 1996 when the old regulations became invalid, this report notes both numbering systems when referring to the CCL. The new numbers are listed first. The old numbers are in parenthesis with the letter "A" following the number.

Highlights of 1996

There were four major changes in the Commerce export control programs during 1996. The first was in January 1996 when Commerce published a regulation implementing the President's October 6, 1995 announcement of a major reform of computer export controls. The President announced a liberalization of export controls on all computers to countries in North America, most of Western Europe, and parts of Asia. For certain other countries, including many in Latin America and Central and Eastern Europe, this rule also liberalized export controls on computers. For the former Soviet Union, China and certain other countries, the United States focused export controls on computers intended for military and proliferation end-uses or users, and eased controls on exports of computers to civilian customers. Finally, there were no changes in current policy for computer shipments to terrorist countries, with the exception of the addition of Sudan to ECCNs 4A994 (4A94A), 4D994 (4D94A), 4E994 (4E94A), and Computer Tier 4 (a grouping of terrorist countries, for the purpose of computer controls). This decision streamlined license requirements for U.S. computers that are, or will be in the next two years, widely available in the international market place.

As mentioned above, on March 25, 1996 Commerce published in the Federal Register a comprehensive revision of the EAR. This publication only made minor changes to export control policy; however, it clarified the language of the regulations, simplified their application and generally makes the regulations more user-friendly. This fulfils a goal of the Trade Promotion Coordinating Committee, as stated in its report to Congress entitled "Toward a National Export Strategy."

On October 21, 1996 Commerce published a rule in the Federal Register accepting jurisdiction for certain commercial communications satellites and certain hot section technology for the development and production of commercial aircraft engines transferred from the U.S. Munitions List. The Secretary of Commerce imposed new foreign policy controls on these items with the concurrence of the Secretary of State, in the belief that these controls are necessary to further significantly the foreign policy of the United States. These commodities are also controlled multilaterally by the Wassenaar Arrangement whose members include most of the other producers of these commodities.

In December 1996, Commerce published a rule in the Federal Register implementing the Vice President's October 1 announcement on encryption export controls. Export licensing jurisdiction for commercial encryption items was transferred from the State Department to the Commerce Department. The U.S. Government allows the export under a licensing exception of recoverage encryption hardware and software. For encryption software, a two-year relief period allows the export of products with up to a 56-bit key length encryption capability after a one-time review, and is contingent upon industry commitments to build and market future products that support key recovery and key management infrastructure. The Administration's initiative supports the growth of electronic commerce, increases the security of information, and sustains the economic competitiveness of U.S. encryption product manufacturers during the transition to a key management infrastructure with key recovery.

In addition to the major events listed above, there were other events affecting Commerce export controls, especially regarding embargoed countries. Following the shootdown of U.S. civilian aircraft by Cuban military aircraft in February 1996, the President ordered the grounding of U.S. flights to Cuba. The ban also applies to temporary sojourn flights that previously were allowed under validated licenses for humanitarian, journalistic, or other approved purposes. The President allowed one flight carrying humanitarian relief aid from the United States to fly directly to Cuba in October 1996 when Cuba was struck by hurricane "Lili."

The Cuban Liberty and Democratic Solidarity (LIBERTAD) Act (Public Law 104-114) was signed into law on March 12, 1996. Title I of the legislation, among other things, codifies the embargo, amends the telecommunications provision of the Cuban Democracy Act (CDA), and authorizes the President to assist independent non-governmental groups in Cuba and to establish an exchange of news bureaus between the United States and Cuba. The Act did not impact current Commerce licensing of exports of humanitarian aid to Cuba under the CDA. The President decided on July 16 to allow Title III of the Act to take effect, thereby establishing potential civil liability for persons trafficking in expropriated property in Cuba, claims to which are owned by U.S. nationals. The President, however, suspended the right of individuals to file suit for civil damages in U.S. courts. Title III requires the President to decide whether to renew the suspension every six months. The suspension was designed to encourage our allies to work with the United States on promoting democracy in Cuba. Title IV of the Act provides for the exclusion from the United States of persons engaged in trafficking in confiscated property in Cuba to which U.S. nationals own claims, as well as immediate family members and agents of such firms.

On March 5, 1996 Commerce amended the EAR to reflect the imposition of additional economic sanctions on Iran as a result of the issuance of Executive Order 12959 on May 6, 1995. The Executive Order delegates responsibility for implementing sanctions imposed, inter alia, under the authority of the International Emergency Economic Powers Act, to the Department of the Treasury's Office of Foreign Assets Control (OFAC), including restrictions on exports and certain reexports. The controls on exports and reexports to Iran under the Export Administration Regulations continue to apply. To avoid duplication, however, application for an export or

reexport subject to both the EAR and OFAC's Iran Transactions Regulations are made to OFAC. If OFAC authorizes an export or reexport, no separate authorization from BXA is necessary. This rule makes clear that enforcement action may be taken under the EAR with respect to an export or reexport prohibited both by the EAR and by the Executive Order and not authorized by OFAC.

On August 5, 1996 the President signed into law the Iran and Libya Sanctions Act of 1996. The threats posed by Iran and Libya are serious and urgent. By limiting the ability of these countries to develop their petroleum resources, this act aims to induce Iran and Libya to change their behavior, and to restrict the funds they have available to develop weapons of mass destruction and support terrorism. If there is a determination that sanctionable activity has occurred, the President must choose two among six sanctions, one of which is export sanctions.

As consequence of the 1995 General Framework Agreement for Peace in Bosnia and Herzegovina, sanctions on the former Yugoslavia have ended. In January 1996, OFAC suspended sanctions prospectively on all financial and trade transactions with the Federal Republic of Yugoslavia (Serbia and Montenegro) and areas of Croatia. Concurrently with OFAC's action, Commerce reassumed licensing responsibilities for exports. Trade and financial transactions with Serb-controlled areas of Bosnia were similarly authorized prospectively in May 1996. The United Nations Sanctions Committee had suspended these sanctions on November 22, 1995 and terminated them on October 1, 1996. Former Republic of Yugoslavia assets remain blocked, however, until provision is made to address claims or encumbrances with respect to such property interests, including claims of the successor states of the former Yugoslavia.

The United Nations terminated the restrictions on the sale of arms and related material to the Government of Rwanda September 1, 1996. Originally, the United Nations imposed these restrictions through Resolution 918 in 1994. In August 1995, the United Nations suspended the restrictions for a year with the expectation of terminating the controls if Rwanda remained peaceful for the year. Since the Rwandan government remained stable, the U.N. restrictions on the Government of Rwanda were terminated. However, the U.S. restrictions on the sale or supply of arms and related material to non-governmental forces for use in Rwanda are still in effect.

On December 9, 1996, the United Nations approved a long-delayed oil-for-food deal that permits Iraq to export specified amounts of petroleum for the first time since the United Nations imposed sanctions on Iraq in 1990 to punish it for invading Kuwait. The agreement, which represents a partial lifting of the sanctions, permits Iraq to sell $2 billion worth of oil over six months and use the money to buy food, medicine and other humanitarian supplies to help ease widespread hunger and illness. This program is administered by the Department of Treasury's Office of Foreign Assets Control.

On December 10, 1996, the National Security Council (NSC) reformed the "informed by" process under EPCI by placing it within the interagency review structure for export licenses. This

initiative which was proposed by Commerce, will improve the transparency and timeliness of the "informed by" process.

Contents and Format of the Report

A two-part structure is used in this report to identify and report on foreign policy export controls administered by the Department of Commerce.

Part One: Export Control Program Description and Licensing Policy

This part defines the export controls maintained for a particular foreign policy purpose that are imposed or extended for the year 1997. The licensing requirements and policy applicable to a particular control are described in this section.

Part Two: Analysis of Control as Required by Section 6(f) of the Act

This part outlines the considerations or determinations, as required by Section 6(f)(2) of the Act, on the purpose of the control, criteria, alternative means, consultation efforts, and foreign availability. For each control program, the Department's conclusions are based on the following required criteria:

A. The Purpose of the Control

This section provides the foreign policy purpose and rationale for each particular control.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. This section considers or determines whether such controls are likely to achieve the intended foreign policy purpose, in light of other factors, including the availability from other countries of the goods or technology subject to control, and whether the foreign policy purpose cannot be achieved through negotiations or other alternative means.

2. Compatibility with Foreign Policy Objectives. This section considers or determines whether the controls are compatible with foreign policy objectives of the United States and with overall United States policy toward the country or the proscribed end-use subject to the controls.

3. Reaction of Other Countries. This section considers or determines whether the reaction of other countries to the extension of such export controls by the United States is likely to render the controls ineffective in achieving the intended foreign policy purpose or to be counterproductive to other United States foreign policy interests.

4. Economic Impact on United States Industry. This section considers or determines if the effect of the controls on the export performance of the United States, its competitive position in the international economy, the international reputation of the United States as a reliable supplier of goods and technology, or the economic well-being of individual United States companies and their employees and communities exceeds the benefit to United States foreign policy objectives.[3]

5. Enforcement of Control. This section considers or determines the ability of the United States to enforce the controls. Some enforcement problems are common to all foreign policy controls.[4] Others are associated with only one or a few controls. Each individual control has been assessed to determine if it has presented, or is expected to present, an uncharacteristic enforcement problem. If no enforcement problems associated with a particular control are known or expected, other than those discussed in footnote 4, the statement "no enforcement problems apart from those discussed in endnote 4 have been identified" is used.

C. Consultation with Industry

This section is a discussion of the results of consultations with industry leading up to the extension or imposition of controls. It also includes comments provided to BXA by the Technical Advisory Committees (TACs); such comments are attributed to the TAC unless otherwise indicated.

D. Consultation with Other Countries

This section reflects consultations on the control with countries that cooperate with the United States on multilateral controls, as well as with other countries as appropriate.

E. Alternative Means

This section specifies the nature and results of any alternative means attempted to accomplish the foreign policy purpose, or the reasons for extending the controls without attempting any such alternative means.

F. Foreign Availability

This section considers the availability from other countries of goods or technology comparable to those subject to the proposed export control. It also describes the nature and results of the efforts made pursuant to section 6(h) of the Act to secure the cooperation of foreign governments in controlling the foreign availability of such comparable goods or technology. In accordance with the Act, foreign availability considerations do not apply to export controls in effect prior to June 12, 1985, to controls maintained for human rights and anti-terrorism reasons, or to controls in support of the international obligations of the United States.

General Comments from Industry

Detailed comments submitted by industry are provided in the Appendix to this report.

Nearly all comments from industry emphasized the need for multilateral controls, rather than unilateral controls. Last year, nearly all comments made this same statement. Their perception is that unilateral controls do not impair the target country's ability to acquire comparable items. Industry encourages the use of means other than trade sanctions in dealing with problematic countries. However, one company said that they recognize the President's right to impose unilateral foreign policy-based controls on certain countries.

2. Crime Control/Human Rights [Sections 742.7(776A.14)][5] [6]

Export Control Program Description and Licensing Policy

The control on crime control items, required by Section 6(n) of the Act, is prompted primarily by human rights concerns in various parts of the world.

A. Crime Control Items. A license is required to export crime control and detection instruments and equipment and related technical data to any destination, except NATO members, Australia, Japan and New Zealand.

Implements of Torture. A license is required to export specially designed implements of torture and thumbscrews to any destination.

B. Crime Control Items. Applications for licenses will generally be considered favorably on a case-by-case basis, unless there is evidence that the government of the importing country may have violated internationally recognized human rights and that the judicious use of export controls would be helpful in deterring the development of a consistent pattern of violations or in distancing the United States from such violations.

Implements of Torture. Applications for licenses will generally be denied.

C. Following the military crackdown by the People's Republic of China (PRC) in June 1989, the United States imposed constraints on the export of certain items on the Commerce Control List (CCL). Section 902(a)(4) of the Foreign Relations Authorization Act for FY 1990-1991, Public Law 101-246, suspends the issuance of licenses under Section 6(n) of the Act for the export of any crime control or detection instruments or equipment to the PRC. The suspension may be terminated only if the President reports that China has made progress on a program of political reform or that it is in the national interest of the United States to terminate the suspension.

D. Applications for licenses for light arms and crowd control items to Indonesia will be denied, consistent with Section 582 of the Foreign Operations, Export Financing and Related Programs 1995 Appropriations and 1994 Supplemental Appropriations Act (Public Law 103-306) and Administration policy.

E. The Department of State annually compiles a volume of Country Reports on Human Rights Practices. This report is prepared in accordance with Sections 116(d) and 502B(b) of the Foreign Assistance Act of 1961, as amended, and is submitted to the Congress. The factual situation presented in this report is a significant element in licensing recommendations made by that Department.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Control

Crime Control Items. The purpose is to ensure that United States-origin police equipment is not exported to countries whose governments do not respect internationally-recognized human rights. Denial of export license applications to such countries distances the United States from human rights violations and sends a concrete signal about United States human rights concerns to the government of the importing country.

Implements of Torture. The purpose is to ensure that U.S.-origin implements of torture are not exported to any destination, in order to distance the United States from human rights violations and to send a concrete signal about U.S. human rights concerns to the international community.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. Because of the lack of complementary controls on the part of other producer nations, these controls are of limited effectiveness in altering foreign government conduct where the item is available outside the United States. Nevertheless, the control does serve to restrict access to U.S.-origin goods in situations where human rights are being violated and has symbolic importance in distancing the United States from those violations.

2. Compatibility with Foreign Policy Objectives. This control program is fully consistent with U.S. policy in support of internationally recognized human rights, as expressed by successive Administrations and by Congress.

3. Reaction of Other Countries. These controls are unique, serve a distinct foreign policy purpose and arise out of deeply held human rights convictions. Reactions of other countries do not render them ineffective.

4. Economic Impact on United States Industry. In FY 1996 1,706 applications were approved to all destinations for all crime control commodities, at a total dollar value of $215,906,267. There are two items not included in this analysis, fingerprint computers under ECCN 4A003(4A03) and police-model infrared viewers under 6A002(6A02). These items are also controlled for crime control reasons, but are not included due to the difficulty of extracting a small number of items controlled in a CCL sub-paragraph from the database.

CRIME CONTROL LICENSING FY 1996

Item	ECCN	Applications Approved	$ Value
Shotguns	0A984(0A84)	1247	$ 67,404,867
Helmets/ Handcuffs	0A982(0A82)	195	$ 6,836,690
Tear Gas	1A984(1A84)	184	$ 2,224,929
Voice Print I.D.	3A980(3A80)	0	$ 0
Polygraphs	3A981(3A81)	79	$139,349,781
Crime Science Labs	9A980(9A80)	1	$ 90,000
Torture Implements/ Thumbscrews	0A983(0A83)* (0A82)*	0	$ 0

* The old ECCN 0A82, which previously encompassed police helmets and shields, leg irons, shackles, handcuffs, and straight jackets, specially designed implements of torture, and thumbscrews, was divided into two separate ECCNs in 1995.

Of the applications for shotguns (0A984/0A84), 47 were denied in FY 1996, with a total value of $2,946,568. The denied applications were destined for a variety of countries including Vietnam, Nigeria, Indonesia, and several other Central American, Asian, African, and Eastern European countries.

The existence of these controls could negatively impact U.S. suppliers because they must comply with licensing regulations requiring time and incurring administrative costs, while some foreign competitors do not control this equipment. Moreover, some crime control exports are denied, such as shotguns valued at $2,946,568 in FY 1996, representing a loss of potential sales for U.S. firms. However, the U.S. Government affirms that human rights violations cannot be overlooked for economic gain.

5. Enforcement of Control. No specific enforcement problems have been identified in connection with crime control items or implements of torture. For the most part, the affected commodities are readily recognizable. In the case of items controlled unilaterally, enforcement cooperation from other countries and control over reexports is difficult.

C. Consultation with Industry

Crime Control Items. Commerce has not received any comments from industry on crime control items; however, Commerce has received several letters from the public regarding an Amnesty International Report charging that the U.S. Government is licensing crime control items that are being used by foreign governments for human rights abuses. Commerce takes this matter very seriously and is currently looking at ways to improve the licensing of crime control items for legitimate police/military activity and to prevent the misuse of these items by human rights violators.

Implements of Torture. Commerce received many letters from the public questioning implements of torture and why this category appeared on the Commerce Control List (CCL). Implements of torture appear on the list to notify exporters that these are controlled commodities and may not be exported without the explicit permission of the U.S. Government. In 1995 Commerce created a new ECCN for implements of torture and thumbscrews and removed them from the category of crime control equipment. Commerce also added a new section, 742.11(776A.19), to the Regulations, to emphasize that implements of torture are subject to a policy of denial. Commerce also extended controls on implements of torture to all destinations. No applications were approved for these items in 1996.

D. Consultation with Other Countries

Many other supplier countries have not placed similar controls on their exports of crime control and detection equipment. The United Kingdom and Canada are examples of countries who do maintain controls on crime control commodities that are similar to U.S. controls.

E. Alternative Means

Export controls on crime control and detection equipment are required pursuant to section 6(n) of the Act. Alternative means are not likely to satisfy this requirement. The United States Government frequently uses diplomatic demarches, sanctions, and other means to convey its concerns about the human rights situation in various countries.

F. Foreign Availability

The foreign availability provision does not apply to section 6(n) of the Act.[7] Congress has recognized the usefulness of these controls in supporting United States policy on human rights issues, foreign availability notwithstanding.

3. Regional Stability [Section 742.6(776A.16)]

Export Control Program Description and Licensing Policy

This control has traditionally covered vehicles specially designed or modified for military purposes and certain dual-use commodities that can be used to manufacture military equipment. Certain goods and technologies were transferred to the CCL from the State Department's United States Munitions List in 1993 and are controlled for regional stability reasons. This process of transferring items from State Department jurisdiction to Commerce Department jurisdiction is continuing.

A. A license is required for foreign policy purposes to export military vehicles and certain commodities used to manufacture military equipment to all destinations except member nations of NATO, Australia, Japan and New Zealand. Applications for export licenses for such items will generally be considered favorably, on a case-by-case basis, unless the export would contribute significantly to the destabilization of any region.

B. Items formerly on the United States Munitions List transferred to the Commerce Control List (CCL) include certain image intensifier tubes, infrared focal plane arrays, plus certain navigation systems technology for inertial navigation systems, gyroscopes and accelerometers. A license is required for export to all destinations except Canada. All license applications for these items will be reviewed on a case-by-case basis to determine whether the export could contribute, directly or indirectly, to a country's military capabilities in a manner that would destabilize or alter a region's military balance contrary to the foreign policy interests of the United States.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Control

This control provides an effective mechanism for the United States to monitor the export of the noted items in order to restrict their usage in instances where regional stability or military balance would be adversely affected.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. This control enables the United States to restrict the use or availability of certain sensitive goods and technologies in areas where regional stability or military balance could be adversely affected, thus achieving intended foreign policy purposes.

2. Compatibility with Foreign Policy Objectives. This control is consistent with United States foreign policy goals, including promoting peace and stability and preventing U.S. exports that might contribute to weapons production or military capabilities in areas of concern.

3. Reaction of Other Countries. A number of other countries limit exports of items and technologies with military applicability to areas of concern, recognizing that such equipment could adversely affect regional stability and military balance.

4. Economic Impact on United States Industry. Regional Stability controls encompass two major groups of items. The first group consists of commodities that do not require a validated license when destined for NATO countries, Australia, Japan, or New Zealand. The CCL entries that fall under this category are 9A018.b (9A18A.b), vehicles specifically designed or modified for military purposes, and 0A018.c (0A18A.c), specially designed component parts for ammunition. Commerce approved 100 IVLs in FY 1996 for 9A018.b(9A18A.b) items, with a total value of $53,298,952. There were no denials for these items.

The second group consists of image intensifier tubes, infrared focal plane arrays, and certain navigation systems technology. A validated license is required for export to all destinations except Canada. These items are controlled under ECCNs 1B018.a (1B18A.a), 2B018 (2B18A), 6A002 (6A02), 6A003(6A03), 6D001 (6D21), 6E001 (6E01), 6E002 (6E02), 7D001 (7D01), 7E001 (7E01)(7E21), 7E002 (7E02), 7E101 (7E21). In FY 1996, Commerce approved 453 license applications for these commodities, with a total value of $51,020,448.

The majority of these applications were for ECCNs 6A002 (6A02)and 6A003 (6A03) (448 out of the 453 approvals mentioned above). Five applications were denied for ECCNs 6A002(6A02) and 6A003(6A03), for a total dollar value of $1,760,143. Of the six denied applications, two listed the country of ultimate destination as China. The remainder had been destined for India, Algeria, and Croatia. Eighteen applications for these commodities were returned without action.

On the average, license applications for items controlled for regional stability took 38-48 days for processing in FY 1996.

5. Enforcement of Control. Nearly all commodities and related software and technology that are subject to controls for regional stability purposes are also subject to multilateral controls for either national security or missile technology reasons. This coincidence of control facilitates the ability to detect direct exports because enforcement personnel do not require additional training to distinguish national security or missile technology controlled items from those controlled for foreign policy purposes.

C. Consultation with Industry

None of the industry comments received on the extension of foreign policy controls specifically addressed the regional stability controls. Various elements in industry have been consulted during the ongoing transfer to Commerce control of the former State Department-licensed Munitions List items. Industry input received during this process in large measure supported the placing of these items under Commerce control, and encouraged further such transfers.

D. Consultation with Other Countries

Certain items controlled by the United States for regional stability purposes are being controlled by the members of the Wassenaar Arrangement.

E. Alternative Means

The United States has undertaken a wide range of actions to support and encourage regional stability. Bilateral and multilateral diplomatic means have been used to discourage actions that destabilize the region in which they are located. The United States has specifically encouraged efforts to limit the flow of arms and militarily useful goods to regions of conflict and tension.

F. Foreign Availability

There are numerous foreign sources for the military vehicles and other military type equipment long controlled for regional stability purposes. There is also considerable foreign availability for items now under Commerce Department control jurisdiction but previously controlled by the State Department. However, nearly all commodities and related software and technology that are subject to controls for regional stability purposes are also subject to multilateral controls for either national security or missile technology reasons.

4. Terrorist-Supporting Countries [Section 742.8, 742.9, 742.10(785A.4]

Export Control Program Description And Licensing Policy

These controls reflect U.S. opposition to acts of international terrorism, as well as address other United States foreign policy concerns. Pursuant to Section 6(j) of the Act, the Secretary of State has designated Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria as nations that have repeatedly provided support for acts of international terrorism.

The United States maintains comprehensive economic and trade embargoes on Cuba, Iran, Iraq, Libya and North Korea. Export control elements of the embargoes against Cuba and North

Korea are administered by the Department of Commerce and are covered in Chapter 5. Elements of the controls imposed on Libya that are administered by Commerce are discussed in Chapter 6. Other elements of these embargoes are administered by the Department of Treasury and are not discussed in this report. The comprehensive embargo on Iran, imposed under Executive Order No. 12959 of May 6, 1995, and the United Nations Security Council mandated embargo on Iraq are administered by the Department of the Treasury and are also not addressed in this report. This chapter details the anti-terrorism and foreign policy controls on Iran, Sudan and Syria.

On April 24, 1996 the President enacted the "Antiterrorism and Effective Death Penalty Act of 1996", Public Law 104-132. Section 321 of the Act makes it a criminal offense, except as provided in regulations issued by the Department of Treasury, for U.S. persons to engage in financial transactions with the governments of countries which support international terrorism. In August 1996, the Treasury Department issued the "Terrorism-Supporting Countries Sanctions Regulations." Fundamentally, as the United States already had comprehensive trade restrictions on Cuba, North Korea, Iran, Iraq and Libya, this change did not have a substantial impact on U.S. exports or U.S. export license requirements to these countries. Under the Treasury regulations, certain financial transactions with the Governments of Syria and Sudan are prohibited unless specifically authorized by Treasury. The new regulations for Syria and Sudan prohibit U.S. persons from receiving unlicensed donations and from engaging in financial transaction with respect to which the U.S. person knows or has reasonable cause to believe that the transaction poses a risk of furthering terrorist acts in the United States. All other financial transactions are authorized. Commerce export license requirements on Sudan and Syria are maintained.

Effective December 28, 1993, the Acting Secretary of State determined that five categories of items that are the subject of multilateral controls were to be controlled to certain sensitive government end-users under Section 6(j), since these items meet the criteria set forth in Section 6(j)(1)(B). Specifically, the Acting Secretary determined that these items, when exported to military or other sensitive end-users in a terrorist-designated country, could make a significant contribution to that country's military potential or could enhance its ability to support acts of international terrorism. These anti-terrorism controls apply to all terrorism list countries.

The Acting Secretary also advised that other items not specifically controlled under Section 6(j) should continue to be controlled for general foreign policy purposes under Section 6(a) to terrorism list countries, and that the export of such items will continue to be reviewed prior to approval to evaluate whether, under the circumstances of the application, the requirements of Section 6(j) apply. These measures are described in detail below. This review practice also applies in the review of all exports to terrorist-designated countries regardless of the basis for their control.

The Secretaries of State and Commerce decided to impose controls on Sudan under Section 6(a) to correspond to Section 6(a) controls on Iran and Syria. State and Commerce also imposed new controls on explosive device detectors to Iran, Syria, and Sudan.

Paragraph A below reflects the Section 6(j) controls; paragraph B reflects the Section 6(a) controls on Iran, Sudan, and Syria.

A. The Acting Secretary of State determined, effective December 28, 1993, that the export of certain categories of goods and technologies when destined to military, police, intelligence entities and other sensitive end-users, as determined by the Department of State, in any country designated under Section 6(j) of the Act as a country that has repeatedly provided support for acts of international terrorism "could make a significant contribution to the military potential of such country, including its military logistics capability, or could enhance the ability of such country to support acts of international terrorism." As a result of this determination, the Secretaries of State and Commerce will notify Congress 30 days prior to the issuance of any license for the export of any item from the five categories listed below to sensitive end-users in the terrorist countries.

Pursuant to Section 6(j) of the Act, a validated license for terrorist-designated countries is required for the following items to military or other sensitive end-users:

All items subject to national security controls, except computers with an MTOP level under 500 (WA);[8]

All items subject to chemical and biological weapons proliferation controls (AG);

All dual-use items subject to missile-proliferation controls (MTCR);

All items subject to nuclear weapons-proliferation controls (NRL); and

All military-related items (items controlled by CCL entries ending with the number 18).

B. Pursuant to Section 6(a) of the Act, the following categories of items require a validated license for Iran, Sudan, and Syria in furtherance of United States foreign policy. Exports and certain reexports to Iran are also subject to licensing requirements under the trade and investment comprehensive embargo administered by the Department of the Treasury under the authority of the International Emergency Economic Powers Act. License applications for items controlled under Section 6(a) of the Act are reviewed before approval to determine whether the requirements of Section 6(j) apply. Whenever the Secretary of State determines that the export "could make a significant contribution to the military potential of such country, including its military logistics capability, or could enhance the ability of such country to support acts of international terrorism," the appropriate congressional committees will be notified 30 days before the license is issued. The categories of items are:

Categories of items listed in paragraph A to non-military or non-sensitive end-users.
Computers with a CTP level under 500
Aircraft, Including Helicopters, Engines and Parts

Heavy Duty On-Highway Tractors
Off-Highway Wheel Tractors (>10 tons)
Cryptographic, Cryptoanalytic and Cryptologic Equipment
Navigation, Direction Finding and Radar Equipment
Electronic Test Equipment
Mobile Communications Equipment
Acoustic Underwater Detection Equipment
Vessels and Boats (Including Inflatable Boats)
Marine and Submarine Engines
Underwater Photographic Equipment
Submersible Systems
CNC Machine Tools
Vibration Test Equipment
Certain Digital Computers (CTP>6)
Certain Telecommunications Transmission Equipment
Certain Microprocessors (Clock Speed >25 Mhz)
Certain Semiconductor Manufacturing Equipment
Software Specially Designed for CAD/CAM IC Production
Packet Switches
Software Specially Designed for Air Traffic Control Applications
Gravity Meters (Static Accuracy <100 Microgal or with Quartz Element)
Certain Magnetometers with Sensitivity <1.0 nt rms per root Hertz
Certain Fluorocarbon Compounds for Cooling Fluids for Radar and Supercomputers
High-Strength Organic and Inorganic Fibers
Certain Machines for Gear-Cutting (Up to 1.25 Meters)
Certain Aircraft Skin and Spar Milling Machines
Certain Manual Dimensional Inspection Machines (Linear Positioning Accuracy 3+L/300)
Robots Employing Feedback Information in Real Time
Explosive device detectors, used in airports

C. A validated license for foreign policy reasons is required for Iran and Sudan for the following additional items:

Large Diesel Engines (>400 hp)
Scuba Gear
Pressurized Aircraft Breathing Equipment

D. A validated license for foreign policy reasons is required only for Iran for the following additional items:

Portable Electric Power Generators

E. Licensing Policy:

1. All items requiring a license for Iran for national security or foreign policy reasons are subject to a policy of denial. All exports and certain specified reexports are also subject to the comprehensive trade and investment embargo administered by the Department of Treasury.

2. Applications for export to Sudan and Syria of national security controlled items will generally be denied if the export is destined to a military or other sensitive end-user or end-use. Applications for other end-users or end-uses in Sudan and Syria will be considered on a case-by-case basis.

3. All items subject to chemical and biological weapons (CBW) proliferation controls proposed for export to Sudan and Syria will generally be denied.

4. All items subject to missile technology controls proposed for export to Sudan and Syria will generally be denied.

5. Applications for export to Sudan and Syria of military-related items (CCL entries ending in the number 18) will generally be denied.

6. Applications to export to Sudan and Syria nuclear referral list items will generally be denied for military end use. For civilian end use, applications will be considered on a case-by-case basis.

7. Applications for other items controlled to Sudan and Syria for foreign policy purposes will carry a presumption of denial to military end-users and end-uses. For other end-users and end-uses, license applications will, in most instances, be reviewed on a case-by-case basis.

8. Applications for export and reexport to Sudan and Syria will be considered on a case-by-case basis if:

a. the transaction involves the reexport to Sudan or Syria of items where Sudan or Syria was not the intended ultimate destination at the time of original export from the United States, provided that the export from the United States occurred prior to the applicable contract sanctity date;

b. the United States content value of foreign-produced commodities is 20 percent or less; or

c. the commodities are medical equipment.

9. Applicants wishing to have contract sanctity considered in reviewing their applications must submit adequate documentation demonstrating the existence of a contract that pre-dates the imposition or expansion of controls on the item(s) intended for export.

Analysis of Control as Required by Section 6(f) of The Act

A. The Purpose of the Control

The controls concretely distance the United States from nations that have repeatedly supported acts of international terrorism, and demonstrate the firm resolve of the United States not to conduct unrestricted export trade with nations that do not adhere to acceptable norms of international behavior. The licensing mechanism provides the Department with the means to control any significant United States contribution to the military potential of designated countries and to limit their ability to support international terrorism.

Iran. These controls respond to continued Iranian sponsorship of terrorism. The purpose of the controls is to restrict equipment that would be useful in enhancing Iran's military or terrorist-supporting capabilities, as well as address other U.S. foreign policy concerns, including human rights, non-proliferation and regional stability.

The controls also allow the United States to prevent shipments of U.S.-origin equipment for uses that could pose a direct threat to U.S. interests. Iran continues to support groups that practice terrorism, including terrorism to disrupt the Middle East Peace Process, and it continues to kill Iranian dissidents abroad. By restricting militarily useful items, the controls demonstrate the resolve of the United States not to provide any direct or indirect military support for Iran and respond to other U.S. foreign policy concerns.

Syria. Although there is no evidence of direct Syrian Government involvement in the planning or implementing of terrorist acts since 1986, Syria continues to provide support and safe haven to groups which engage in terrorism. The groups include the Popular Front for the Liberation of Palestine General Command; Hamas; Hizballah; the Abu Nidal Organization; the Popular Front for the Liberation of Palestine; the Democratic Front for the Liberation of Palestine; the Japanese Red Army; the Kurdistan Workers Party (PKK); DHKP/C (formerly known as Dev Sol); and the Palestinian Islamic Jihad. The trade controls reflect U.S. opposition to Syria's support and safe-haven to terrorist groups and prevent a significant U.S. contribution to Syria's military capabilities.

Sudan. Evidence indicates that Sudan allows the use of its territory as sanctuary for terrorists including the Abu Nidal Organization, Hizballah, Hamas and Palestinian Islamic Jihad. Safe houses and other facilities used to support radical groups are allowed to exist in Sudan with the apparent approval of the Sudanese Government's leadership. Further, some military extremists who commit acts of sabotage in neighboring countries receive training in Sudan. The export controls demonstrate United States opposition to Sudan's support for international

terrorism while restricting access to items that could make a significant contribution to Sudan's military capability or ability to support international terrorism.

B. Considerations and/or Determinations of the Secretary of Commerce:[9]

1. Probability of Achieving the Intended Foreign Policy Purpose. Although availability of comparable goods from foreign sources limits the economic effects of these controls, they are effective in achieving their purpose of restricting access of these countries to United States-origin commodities and technical data and in demonstrating the determination of the United States to oppose and distance itself from acts of international terrorism. Judicious application of export controls in conjunction with other efforts serves to enhance the overall United States effort to combat international terrorism. In extending controls toward Iran, Syria and Sudan, the Secretary has determined that they are likely to achieve the intended foreign policy purpose, in spite of such other factors as the availability from other countries of comparable items.

Iran. The controls on Iran restrict its access to specified items of U.S.-origin that could be used to threaten U.S. interests. The United States has sought, and will continue to seek, the cooperation of other countries in cutting off the flow of military and military-related equipment to Iran.

Sudan. The controls on Sudan affirm the commitment of the United States to oppose international terrorism by limiting Sudan's ability to obtain and use United States-origin items in support of terrorist or military activity. These controls send a clear message to Sudan of strong United States opposition to its support for terrorist groups.

Syria. These controls are an important means of demonstrating the United States' resolve by limiting Syria's ability to obtain United States-origin items that could be used to support terrorist activities or contribute significantly to Syria's military potential. Although other nations produce many of the items subject to United States anti-terrorism controls, this does not obviate the need to send a strong signal to the Syrian Government of our disapproval of support for groups involved in terrorism.

2. Compatibility with Foreign Policy Objectives. In extending these controls, the Secretary determined that they are compatible with the foreign policy objectives of the United States toward nations designated as supporters of terrorism. They are also compatible with overall United States policy toward Iran, Sudan and Syria. In addition, the controls are consistent with United States efforts to restrict the flow of items that could be used for military or terrorist purposes.

3. Reaction of Other Countries. The United States limits the extra-territorial effects of these controls to minimize frictions with friendly countries. The list of countries designated as supporters of international terrorism is revised whenever a country's record warrants its removal from, or addition to, the terrorist country list. In 1982, Iraq was removed while Cuba was added. Iran was added in 1984 and North Korea in 1988. Iraq in 1990 was returned to the list and the

former People's Democratic Republic (PDR) of Yemen was removed following its unification with the Yemen Arab Republic. Sudan was added in 1993. The controls are applied on the basis of each country's record regarding support for repeated acts of international terrorism.

The Secretary has determined that the reaction of other countries to the extension of the controls on Iran, Syria and Sudan is not likely to render the controls ineffective in achieving their intended foreign policy purpose, or to be counterproductive to United States foreign policy interests.

Iran. Regarding the controls on specific product categories, other countries have shared the United States' concern over Iran's support of terrorism, human rights abuses, attempts to acquire weapons of mass destruction, and the need to deny access to equipment that could be used to threaten neutral shipping. Thirty-two other countries via Wassenaar have recognized Iran as a country whose behavior is a cause of concern. Some nations have, on the other hand, raised objections to the perceived extra-territorial reach of the U.S. foreign policy controls.

Sudan. The controls were imposed in response to credible evidence that Sudan is assisting international terrorist groups. The decision to designate Sudan a state sponsor of terrorism reflects an assessment of the facts and United States law. The United States has consulted with key allies and urged them to do whatever is possible to convince Sudan to halt its support for terrorism. Some have made their disapproval of Sudan's support for terrorism known in other ways. For example, the Organization of African Unity (OAU), in an unprecedented action criticizing a member, passed a resolution in September 1995 calling on Sudan to extradite to Ethiopia three suspects charged with the June 1995 assassination attempt against President Mubarak of Egypt. In 1996, the United Nations Security Council adopted three resolutions reaffirming the OAU resolution and calling on Sudan to desist from supporting terrorism. Diplomatic and travel sanctions were imposed in May.

Syria. The controls are maintained in response to Syria's lack of concrete steps against international terrorist groups that maintain a presence in Syria and Syrian-controlled areas of Lebanon. Some countries have objected to the extra-territorial impact inherent in reexport controls.

Controls were instituted against Syria after it was designated under Section 6(j) as a terrorist-supporting country in December 1979. Additional export controls were added to the list along with other sanctions in November 1986, following findings of British courts that Syrian officials in London and Damascus were directly involved in aiding and abetting a terrorist, Nizar Hindawi, in his attempt to place a bomb on an El Al civilian aircraft at London's Heathrow Airport. In November 1986, in reaction to the same court findings, the European Union, with the exception of Greece, imposed a number of diplomatic and security sanctions against Syria. The United Kingdom also broke diplomatic relations with Syria at that time, but reestablished relations in November 1990. The United States has provided EU countries with specific information on the purpose and scope of our economic sanctions.

4. Economic Impact on U.S. Industry.

Iran. Iran's economy consists of a mixture of large state-owned enterprises, small-scale service and trading firms, and agricultural enterprises organized at the village level. Although the Iranian Government has recently taken steps to decentralize the economy, the pace of change has been slow because of significant political opposition to a more open economy. Iran experienced a surge in imports during the early 1990s (e.g., imports in 1992 totaled $23.7 billion). The recent increase in imports, coupled with the government's financial mismanagement, has produced economic difficulties for Iran. At the end of 1993, Iran's foreign debt had reached nearly $30 billion, with payments almost $8 billion in arrears. To make matters worse, Iran's earnings from oil exports, which account for approximately 90 percent of Iran's export revenues, have been hurt by declining oil prices. Other economic indicators also show signs of a troubled economy. In 1994, for example, Iran had an unemployment rate exceeding 30 percent and a consumer price inflation rate that hovered around 35 percent.

From 1991 through 1994, U.S. exports to Iran totaled almost $2.2 billion (total derived from U.S. Census data), making the U.S. the sixth largest exporter (by dollar value) to Iran during this period. U.S. exports to Iran rose sharply in the early 1990s after Iran lifted certain import restrictions. From a total of only $166 million in 1990, U.S. exports to Iran increased to $522 million in 1991 and rose to $744 million in 1992. U.S. exports to Iran during 1993 dropped slightly to $613 million. In 1994, however, U.S. exports to Iran declined sharply to $326 million as the license denial policy mandated by the National Defense Authorization Act (NDAA) of FY 1993 began to make a significant impact on U.S. trade with Iran. U.S. exports to Iran fell even further (to $277 million) in 1995 when the U.S. imposed a total trade embargo against Iran.

The passage of the NDAA of FY 1993 appears to have resulted in a decline in U.S. exports to Iran of between $200 million and $300 million per year. Total U.S. exports to Iran averaged $626 million per year from 1991 through 1993, but only $302 million per year for 1994 and 1995. Much of this decline is obviously due to the fact that Commerce, in accordance with the provisions of the NDAA of FY 1993, did not approve any applications for Iran in Fiscal Years 1995 or 1996. In the four previous fiscal years (i.e., FY 1991-94) Commerce approved an average of $177 million in applications to Iran each year. Table 1 clearly shows the significant impact of the NDAA of FY 1993.

Table 1: Approved Applications to Iran (FY 1991-96)

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
1991	89	$ 60,149,182
1992	131	$567,559,528
1993	44	$ 63,834,952

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
1994	10	$ 16,774,377
1995	0	$0
1996	0	$0

Data are also available on the effects of the total trade embargo that was imposed against Iran in 1995. Of the $277 million in U.S. exports (not on the Commerce Control List) to Iran during 1995, almost $223 million occurred during the first six months of the year, prior to the imposition of the embargo. In addition, U.S. exports (not on the Commerce Control List) to Iran during the first half of 1996 totaled only $0.3 million. The result of the 1995 embargo, therefore, appears to have been an additional decline in trade with Iran of more than $200 million per year. Together, the NDAA of FY 1993 and the 1995 U.S. embargo have caused U.S. trade with Iran to decline by more than $500 million per year. However, even in 1992 when exports to Iran were high, these exports comprised only 17% of total U.S. exports worldwide. In 1995 that percentage dropped to .05% of total U.S. exports worldwide.

Table 2 lists the leading categories of items that were exported from the U.S. to Iran during the years 1991 through 1995 (1995 data available from 1/95 through 11/95 only). These categories provide at least a general indication of which U.S. economic sectors were most heavily affected by the NDAA of FY 1993 and the 1995 U.S. embargo against Iran.

Table 2: Top U.S. Exports to Iran (1991-1995)

S.I.C. Number	Description of Goods	Total Value (U.S. dollars)
3511	Turbines & turbine generator sets	$322.5 million
3531	Construction machinery & parts	$307.8 million
3533	Oil & gas field equipment	$250.1 million
2044	Milled rice & byproducts	$166.3 million
0115	Corn	$137.4 million
2873	Nitrogenous fertilizers	$124.2 million
3714	Motor vehicle parts & accessories	$ 50.8 million

S.I.C. Number	Description of Goods	Total Value (U.S. dollars)
2821	Plastics materials & resins	$ 45.4 million
3743	Railroad equipment & parts	$ 42.7 million
3569	General industrial machinery & equipment	$ 41.8 million
3571	Electronic computers	$ 33.1 million

The data in Table 2 indicate that the impact of the embargo on agricultural and oil industry sectors are expected to be among the hardest hit. However, U.S. exports of the categories of items listed in Table 2 totaled roughly $1.52 billion for the period from 1991 through 1995. This amount represents approximately 0.06% of U.S. exports worldwide.

At the time the U.S. embargo on Iran took effect, U.S. companies had received nearly $200 million worth of orders for oil equipment from Iranian oil companies -- these orders can no longer be filled because of the embargo.[10] The embargo is also expected to hurt U.S. corn and rice growers. U.S. rice exports to Iran in 1995 were expected to reach 200,000 metric tons, worth nearly $75 million, and corn exports were expected to reach almost 750,000 tons during the same year.[11] In 1993, U.S. exports of rice to Iran (which totaled nearly $60 million) represented over 8 percent of total U.S. rice exports that year. In 1992, U.S. exports of oil and gas equipment to Iran (which totaled $123 million) represented over 3 percent of total U.S. oil and gas equipment exports for the year.

According to foreign trade statistics available from the United Nations, the leading exporters to Iran among the world's major industrial nations from 1990 through 1994 (the most recent period for which such data are available) include the following countries (listed in descending order according to their total exports to Iran from 1990-94): Germany, Japan, Italy, France, the United Kingdom, the United States, Turkey, South Korea, the Netherlands, Belgium/Luxembourg, and Sweden. The United States was the sixth largest exporter to Iran during this period, with exports of nearly $2.4 billion, but this was only 5% of the total amount of Iran's imports. The other ten countries exported more than $48 billion in goods to Iran from 1990 through 1994. Table 3, below, lists the leading categories of goods exported to Iran by the ther major industrial nations (excluding the U.S.). These categories contain roughly 70 percent of the goods exported from the major industrial nations (excluding the U.S.) to Iran during this period.

Table 3: Top Exports to Iran by Major Industrial Nations(1990-94)

S.I.T.C.	Description of Goods	Total Value (U.S. dollars)
74	General industrial machinery & equipment	$5.83 billion
78	Road vehicles	$5.34 billion
72	Machinery specialized for particular applications	$4.93 billion
67	Iron & steel	$4.37 billion
77	Electrical machinery	$3.64 billion
71	Power generating machinery	$3.08 billion
76	Telecommunications, sound recording & reproduction equipment	$1.93 billion
69	Manufactures of metals	$1.54 billion
73	Metalworking machinery	$1.52 billion
87	Professional scientific & control instruments	$1.39 billion
75	Office & automated data processing machines	$0.49 billion

A comparison of the top foreign exports to Iran (as shown in Table 3) with the list of the top U.S. exports to Iran (as shown in Table 2) indicates that the U.S. has been in direct competition with Iran's other major trading partners in such areas as general industrial machinery, motor vehicles and motor vehicle parts, power generating machinery, measuring and controlling devices, and electronic computers. This is also true of other categories of items not listed in Table 3, such as plastics and resins, transportation equipment, and industrial organic chemicals.

Syria. Syria's economy is dominated by state-owned and operated enterprises. In the 1960s, the government pursued policies designed to expand the public sector and imposed tight controls on private sector activities. All large industries, including the banking and insurance sectors, were nationalized. During the 1980s, the country suffered from a severe foreign exchange shortage that was aggravated by a sharp decline in aid from other Gulf states. A severe drought in 1989-90 placed even greater strain on the economy by forcing the government to allow significantly higher levels of food imports. In 1989, the government began to loosen controls on domestic and foreign investment in order to encourage economic development. A new investment law was passed in 1991 and the government has gradually increased the number of

goods that the private sector can either produce or import. Although the government retains a monopoly on wheat and flour imports, such items as rice, sugar, and tea may now be imported by the private sector.

Syria's economy began to improve in the early 1990s, largely as a result of the government's economic reforms coupled with a substantial increase in oil production, the agricultural sector's recovery from 1989 drought, and renewed access to aid from other Arab states following Syria's participation in the Gulf War coalition against Iraq. From 1990 through 1993, Syria's economy experienced average annual growth rates in the range of 7 to 8 percent. Oil production nearly quadrupled from 150,000 barrels per day (bpd) in the mid-1980s to almost 580,000 bpd toward the end of 1993. Syria has directed billions of dollars in foreign aid that it has received since the Gulf War toward rehabilitating its deteriorating infrastructure.

In spite of recent gains, Syria's economy is still burdened with numerous inefficient public sector enterprises. The government continues to exercise control over certain strategic sectors of the economy such as oil production, electrical power generation, banking, and wheat and cotton production. Oil production is believed to have peaked and is expected to remain at current levels over the next few years. Lower international oil prices and the increasing domestic demand for petroleum have reduced the country's oil revenues. The breakup of the former Soviet Union in 1989 eliminated Syria's largest market for non-oil exports such as textiles and light manufactured goods. Although exports of fruits and vegetables have increased fivefold since 1988, these products account for only 8 percent of the country's total export earnings. With roughly 60 percent of Syria's population under the age of 20, unemployment is a growing concern. Syria could face a serious water shortage by the end of the century, unless steps are taken to revise the country's water policies.

Nearly two decades of heavy military and public sector investment expenditures have left Syria with a heavy debt burden and a poor credit rating. Most of this debt, about 11 billion dollars, consists of military debts to Russia, with an additional 3 to 8 billion dollars being owed to other trading partners, various international development institutions, and a number of bilateral donors.

Syria's improved economic performance since 1990 has enhanced its prospects as a market for U.S. exports. Syria imported approximately $4.1 billion in goods in 1993 (the most recent year for which statistics are available), including foodstuffs (21 percent of total imports), metal products (17 percent), and machinery (15 percent). The best prospects for exports to Syria have been agricultural products and various goods and services related to the development of Syria's oil fields. Although this will continue to be the case, the departure of U.S. exploration firms from Syria will force U.S. oil field service and equipment companies to concentrate their arketing efforts on Syrian and foreign oil companies. Syria will also require capital goods to rehabilitate its public utilities and state enterprises. In addition, Syria is likely to import significant quantities of light industrial equipment, transportation equipment, and computers.

From 1991 through 1995, U.S. exports to Syria totaled $976 million (total derived from U.S. Census data), averaging roughly $195 million per year and falling within a range between $166 million and $223 million per year (1991: $205 million; 1992: $166 million; 1993: $185 million; 1994: $197 million; and 1995: $223 million). While the level of U.S. exports to Syria has remained relatively constant, several major industrial nations have significantly increased their exports to Syria in recent years. Foreign trade statistics available from the United Nations indicate that total exports to Syria, by the ten major industrial nations (excluding the U.S.) who are the leading exporters to Syria, increased by nearly 50 percent between 1990 and 1994.

Most of the leading U.S. exports to Syria (by dollar value) are concentrated in certain low technology areas (e.g., agricultural products and cigarettes) that are not affected by U.S. foreign policy controls and do not require a license for export or reexport to Syria, or are in areas where the United States, historically, has been dominant in the world market (e.g., oil and gas field equipment). Table 1 lists the U.S. exports to Syria that exceeded $10 million during the period from 1991 through 1995 (1995 data available from 1/95 through 11/95 only).

Table 1: Top U.S. Exports to Syria (1991-1995)

S.I.C. Number	Description of Goods	Total Value (U.S. dollars)
3533	Oil & gas field equipment	$247.7 million
0115	Corn	$86.4 million
2111	Cigarettes	$61.6 million
3569	General industrial machinery and equipment	$32.8 million
2075	Soybean oil & byproducts	$28.9 million
3511	Turbine & turbine generator sets	$28.7 million
3711	Motor vehicles & passenger car bodies	$26.9 million
2284	Thread & handwork yarns	$19.4 million
3312	Blast furnace, steel works, & rolling mill products	$17.2 million
2824	Manmade fibers (noncellulosic)	$16.8 million
3531	Construction machinery and parts therefor	$13.9 million

S.I.C. Number	Description of Goods	Total Value (U.S. dollars)
3714	Motor vehicle parts & accessories	$12.8 million
3561	Pumps & pumping equipment (except fluid power pumps)	$11.8 million
3357	Nonferrous metal wire & cable (drawn & insulated)	$11.5 million
3829	Measuring & controlling devices	$11.2 million

While total U.S. exports to Syria have remained relatively stable in recent years, with only incremental increases in total exports to Syria for every year following 1992, the value of licensed exports to Syria has increased significantly during the last three years. In FY 1996, Commerce approved 80 licenses for Syria, totaling $81,006,877. As shown in Table 2, these figures represent a significant increase over FY 1991, when only eight licenses were approved with a total value of $1,041,504.

Table 2: Approved Licenses for Syria (FY 1991 to FY 1996)

Fiscal Year	Total Applications Approved	Total Value (in U.S. dollars)
1991	8	$ 1,041,504
1992	31	$46,366,527
1993	106	$42,896,103
1994	167	$76,379,096
1995	139	$68,298,135
1996	80	$81,006,877

The majority of items that BXA licensed for export to Syria during the period covered by Table 2 fall within the categories of aircraft parts and components, digital computers, and certain electronic devices controlled only for foreign policy reasons. BXA denied 40 applications for Syria from FY 1991 through FY 1996; these applications had a total value of $26.7 million.

According to foreign trade statistics available from the United Nations, the leading exporters to Syria among the world's major industrial nations from 1990 through 1994 (the most

recent period for which such data are available) include the following countries (listed in descending order according to their total exports to Syria from 1990-94): Germany, Italy, France, Japan, Turkey, the United States, Belgium/Luxembourg, the United Kingdom, the Netherlands, South Korea, and Spain. The United States was the sixth largest exporter to Syria during this period, with exports of nearly $0.91 billion. The other ten countries combined for more than $9.4 billion in exports to Syria from 1990 through 1994. Table 3, below, shows the categories of goods for which exports to Syria by the major industrial nations (excluding the U.S.) exceeded $250 million. These categories contain roughly 65 percent of the goods exported from the major industrial nations (excluding the U.S.) to Syria during this period.

Table 3:Top Exports to Syria by Major Industrial Nations(1990-94)

S.I.T.C. Number	Description of Goods	Total Value (U.S. dollars)
78	Road vehicles	$972.6 million
72	Machinery specialized for particular applications	$828.2 million
65	Textile yarn, fabrics, & made-up articles	$783.1 million
67	Iron & steel	$705.4 million
74	General industrial machinery & equipment	$690.9 million
04	Cereals & cereal preparations	$561.4 million
71	Power generating machinery & equipment	$511.3 million
77	Electrical machinery, apparatus, & appliances	$451.7 million
06	Sugars, sugar preparations & honey	$350.6 million
76	Telecommunications & sound recording & reproduction equipment	$293.9 million

A number of the top export categories listed in Table 3 (e.g., road vehicles, iron and steel, textile yarn, specialized machinery, cereals, and industrial machinery) were dominated by only a handful of countries (e.g., Germany, Japan France, Italy, South Korea, and Turkey).

Although U.S. exports to Syria represent only a small portion of total U.S. exports (e.g., U.S. exports to Syria of $750 million from 1991 through 1994 represented only 0.04 percent of total U.S. exports during that period), analysts such as J. David Richardson, Visiting Fellow at the Institute for International Economics and Professor of Economics in the Maxwell School of Citizenship and Public Affairs at Syracuse University, recently estimated that U.S. unilateral foreign policy controls on Syria had a cost for U.S. businesses "in the neighborhood of $0.2 billion to $0.3 billion annually."[12]

Sudan. Sudan has a very sluggish economy largely due to continuing civil war in the south. The country suffers from soaring inflation rates of over 50 percent per year and a declining annual per capita income. At $375 in 1994, it was among the world's lowest.[13] Sudan's inadequate transportation system is also a major hindrance to economic development. Sudan receives very little economic assistance from the world's donor countries. It has been ineligible for assistance from the International Monetary Fund (IMF) since 1984 and remains the world's largest debtor to the IMF, with accumulated arrears of over $1.3 billion. Sudan continues to suffer from a severe shortage of foreign exchange, as imports exceed exports by more than two to one.[14] The country's desperate economic situation is not expected to improve in the near future.

In conclusion, the overall impact on U.S. industry of U.S. unilateral export sanctions on Sudan is negligible. Sudan's poor economic performance over the past decade has prevented the country from importing a significant amount of goods from any supplier, including the United States. The little amount that is imported by Sudan by and large does not require an individual validated license and is therefore not affected by the sanctions. Many other markets exist for prohibited U.S. exports which should counter the effects of any potential losses.

5. Enforcement of Control. In extending these controls on Iran, Sudan and Syria, the Secretary has determined that the United States has the ability to enforce the controls. Special enforcement problems with these controls involve exports and reexports of aircraft and parts. The fact that aircraft and parts are not controlled to most other countries, including to many in the region, creates the potential of shipments from other sources.

Iran. The expansion of controls on exports to Iran in 1987 imposed new licensing requirements on a large number of items that may be sent to most other destinations without a license or using a licensing exception, including some aircraft items and "consumer" goods that have many producers and end-users around the world. Detection and enforcement cooperation and control of reexports may be particularly difficult with respect to these items. However, enforcement of the controls on direct exports to Iran is aided by the general negative public perception of Iran.

Sudan. Controls on Sudan have not caused major enforcement problems. The United States has a limited number of direct exports and reexports of controlled items to Sudan. Any enforcement problems would likely be in the area of enforcement cooperation and control over

reexports since most other countries have not imposed controls comparable to those imposed by the United States.

Syria. Few enforcement problems have been identified for the direct export of controlled items to Syria. The problems that are most likely to occur will be in the area of enforcement cooperation and control over reexports, particularly for items that are available to many destinations under a general license.

C. Consultation with Industry

Commerce received several comments concerning sanctions imposed in retaliation for acts of terrorism. The main complaint was the unilateral nature of these sanctions and the loss to U.S. business as a result. One manufacturer of commercial jet transports stated that their company deplores acts of terrorism of which their airplanes and the passengers on them are often the targets. However, because of the unilateral nature of U.S. controls, the U.S. manufacturer is often prevented from even supporting those old aircraft that predate sanctions with certified parts and regular updates of safety items. Aircraft owners are compelled to get new equipment from foreign manufacturers thereby bypassing U.S. sanctions and, in some cases, compromising passenger safety. Consequently, jobs and sales are lost to overseas competition which faces no comparable constraints.

Another commentor stated that the only effect of these unilateral controls is to preclude U.S. companies from competing in the marketplace. The same commentor complained about the dollar amount of computer shipments that U.S. industry has not had an opportunity to compete for.

D. Consultation with Other Countries

The United States continues to consult with the international community, particularly key allies, regarding Syria's support for terrorism.

The United States has also consulted with other nations regarding Sudan's support for terrorism, as well as its dismal human rights record and the need for better Sudanese cooperation on humanitarian relief efforts by international organizations operating within Sudan. Specific information has been provided to interested countries on the justification for designating Sudan a state sponsor of terrorism while urging them to do what they can to influence Sudan's behavior favorably.

E. Alternative Means

In efforts to persuade countries supporting terrorism to drop their backing for terrorist activities, the United States Government has taken a wide range of diplomatic, political, and security-related steps, in addition to economic measures such as export controls. The exact

combination has varied according to circumstances and judgments as to the best approaches at a particular time.

The existing controls on Sudan generally reflect the concerns that led to the United States decision to place it on the terrorism list, including the use of Sudanese territory as a sanctuary for terrorist organizations and the training in Sudan of militant extremists who commit hostile acts in neighboring countries. Those controls altogether will take into consideration Sudan's humanitarian needs and generally focus on items that could reasonably make a significant contribution to Sudan's military capability or ability to support terrorism.

The Syrian Government consistently disavows any involvement with acts of international terrorism, despite evidence of direct past Syrian involvement. There is no evidence that Syrian officials have been directly involved in planning or executing terrorist attacks since 1986. In 1994, Syria's involvement centered on its support for, and its providing safe haven to, groups which engage in terrorism. Maintaining these controls is an appropriate way to remind Syria of its obligations to act against terrorist elements whenever it has the capability to do so.

F. Foreign Availability

The foreign availability provision does not apply to items determined by the Secretary of State to require control under Section 6(j) of the Act.[15] Cognizant of the value of such controls in emphasizing the United States position toward countries supporting international terrorism, Congress specifically excluded them from foreign availability assessments otherwise required by the Act. However, the foreign availability of the items controlled to terrorist-designated countries under Section 6(a) has been considered by the Department. In general, numerous foreign sources of commodities similar to those subject to these controls are known. As discussed in the section on Economic Impact (see B(4) above), other countries appear to be supplying Syria with equipment that the United States will not license to Syria. Foreign availability is not an issue for Sudan because of its poor economy.

5. Embargoed Countries [Section 746(785A.1)]

Export Control Program Description and Licensing Policy

The United States maintains comprehensive economic embargoes against Cuba, Iran, Iraq, Libya and North Korea. (Cuba, Iran, Iraq, Libya and North Korea are five of the seven countries designated by the Secretary of State as supporters of acts of international terrorism.) The United States maintains arms embargoes on Liberia, Rwanda and Somalia. The United States maintains an embargo on the supply of both arms and petroleum products to UNITA in Angola.

The embargoes against Cuba and North Korea are administered jointly by the Treasury and Commerce Departments, under the Trading With the Enemy Act of 1917, the Cuban Democracy Act, the EAA, and other statutes and will be discussed in detail in this chapter.

The embargoes against Iran, Iraq, Libya and UNITA are administered by the Treasury Department under the International Emergency Economic Powers Act (IEEPA) and, in some cases, the United Nations Participation Act. The embargoes against these countries are not further detailed in this report. Commerce administers reexports to Libya, so Libya is discussed in detail in Chapter 6 of this report. The arms embargo against Rwanda is administered jointly by the State and Commerce Departments.

Summary of 1996 Changes

The Former Yugoslavia. By Presidential Determination No. 96-7 (December 27, 1995) and subsequent Treasury regulations, the United States suspended sanctions prospectively on all financial and trade transactions with the Federal Republic of Yugoslavia and certain areas of Croatia, effective January 16, 1996. Concurrent with Treasury's regulations, Commerce reassumed licensing responsibility for exports. Trade and financial transactions with Serb-controlled areas of Bosnia were similarly authorized prospectively effective May 10, 1996. Federal Republic of Yugoslavia and Bosnian Serb-controlled assets blocked prior to the suspension, however, remain blocked.

The United Nations Security Council terminated sanctions against the Federal Republic of Yugoslavia and the Bosnian Serb forces, effective October 1, 1996. The resolution terminating sanctions, however, reaffirms the continued blocking of Federal Republic of Yugoslavia assets potentially subject to conflicting claims, including successor state claims, until provision is made to address them.

Iran. On March 5, 1996 Commerce amended the EAR to reflect the imposition of additional economic sanctions on Iran as a result of the issuance of Executive Order 12959 on May 6, 1995. The Executive Order delegates responsibility for implementing sanctions imposed, inter alia, under the authority of the International Emergency Economic Powers Act, to the Department of the Treasury's Office of Foreign Assets Control (OFAC), including restrictions on exports and certain reexports. The controls on exports and reexports to Iran under the Export Administration Regulations continue to apply. To avoid duplication, however, application for an export or reexport subject to both the EAR and OFAC's Iran Transactions Regulations are made to OFAC. If OFAC authorizes an export or reexport, no separate authorization from BXA is necessary. This rule makes clear that enforcement action may be taken under the EAR with respect to an export or reexport prohibited both by the EAR and by the Executive Order and not authorized by OFAC.

On August 5, 1996 the President signed into law the Iran and Libya Sanctions Act of 1996. The threats posed by Iran and Libya are serious and urgent. By limiting the ability of these countries to develop their petroleum resources, this act aims to induce Iran and Libya to change their behavior, and to restrict the funds they have available to develop weapons of mass destruction and support terrorism. If there is a determination that sanctionable activity has occurred, the President must choose two among six sanctions, one of which is export sanctions.

Rwanda. The United Nations terminated the restrictions on the sale of arms and related material to the Government of Rwanda September 1, 1996. Originally, the United Nations imposed these restrictions through Resolution 918 in 1994. In August 1995 the United Nations suspended the restrictions for a year with the expectation of terminating the controls if Rwanda remained peaceful for the year. Since the Rwandan government remained stable, the U.N. restrictions on the Government of Rwanda were terminated. However, the U.S. restrictions on the sale or supply of arms and related material to non-governmental forces for use in Rwanda are still in effect.

Cuba. Following the shootdown of U.S. civilian aircraft by Cuban military aircraft in February 1996, the President ordered the grounding of U.S. flights to Cuba. The ban also applies to temporary sojourn flights that previously were allowed under validated licenses for humanitarian, journalistic, or other approved purposes. The President allowed one flight carrying humanitarian relief aid from the United States to fly directly to Cuba in October 1996 hen Cuba was struck by hurricane "Lili."

The Cuban Liberty and Democratic Solidarity (LIBERTAD) Act (Public Law 104-114) was signed into law on March 12, 1996. The legislation, among other things, codifies the embargo, amends the telecommunications provision of the Cuban Democracy Act (CDA), and authorizes the President to assist independent non-governmental groups in Cuba and to establish an exchange of news bureaus between the United States and Cuba. The Act did not impact current Commerce licensing of exports of humanitarian aid to Cuba under the CDA.

Iraq. On December 9, 1996, the United Nations approved a long-delayed oil-for-food agreement that permits Iraq to export specified amounts of petroleum for the first time since the United Nations imposed sanctions on Iraq in 1990 for invading Kuwait. The agreement, which represents a partial and temporary lifting of the sanctions, permits Iraq to sell $2 billion worth of oil over six months and use some of the proceeds from the sale of oil to buy food, medicine and other humanitarian supplies to help ease widespread hunger and illness. This program is administered by the Department of Treasury's Office of Foreign Assets Control.

North Korea. The United States is committed to the further relaxation of economic sanctions against North Korea provided there is verified progress on the nuclear issue and other areas of concern.

The following paragraphs outline the licensing policies for Cuba and North Korea:

A. A license is required for foreign policy purposes for export to Cuba and North Korea of all commodities and technical data, except:

1. Technical data generally available to the public and informational materials;

2. some types of personal baggage, crew baggage, vessels and certain aircraft on temporary sojourn, ship stores (except as prohibited by the CDA to Cuba) and plane stores under certain circumstances;

3. certain foreign-origin items in transit through the United States;

4. shipments for United States Government personnel and agencies;

5. gift parcels not exceeding $400 for North Korea of commodities such as food, clothing (non-military), medicines, and other items normally given as gifts by an individual; and

6. gift parcels not exceeding $200 for Cuba limited to clothing (non-military), vitamins, seeds, medicines, medical supplies and devices, hospital supplies and equipment, equipment for the handicapped, personal hygiene items, veterinary medicines and supplies, fishing equipment and supplies, soap-making equipment, certain radio equipment, and batteries for such equipment. There are no frequency or dollar value limits on food contained in gift parcels to Cuba.

(NOTE: Cash donations from U.S. citizens for humanitarian assistance, channeled through U.N. agencies, the International Federation of the Red Cross (IFRC) and U.S. Non-government Organizations; and humanitarian related commodities sourced in third countries and donated to North Korea through the above organizations are licensed by OFAC.)

B. Applications for licenses will generally be denied; however, applications will be considered on a case-by-case basis for:

1. non-commercial exports to meet basic human needs;[16]
(Applications will also be considered for the export to the North Korea of telecommunications equipment and transactions related to the implementation of the Agreed Framework. Such transaction are directly related to the liberalizations that took place in January 1995.)

2. exports to Cuba from foreign countries of non-strategic foreign-made products containing 20 percent or less United States-origin parts, components or materials, provided the exporter is not a United States-owned or controlled subsidiary in a third country;

3. exports to Cuba of telecommunications equipment, to the extent permitted as part of a telecommunications project approved by the Federal Communications Commission, necessary to deliver a signal to an international telecommunications gateway in Cuba.

C. Applications for exports of donated and commercially-supplied medicine/medical items to Cuba will be reviewed on a case-by-case basis and shall not be restricted, except:

1. to the extent such restrictions would be permitted under Section 5(m) of the Export Administration Act of 1979 or Section 203(b)(2) of the IEEPA;

2. in a case in which there is a reasonable likelihood that the item to be exported will be used for purposes of torture or other human rights abuses;

3. in a case in which there is a reasonable likelihood that the item to be exported will be reexported; or

4. in a case in which the item to be exported could be used in the production of any biotechnological product; and

5. in a case where it is determined that the United States Government is unable to verify, by on-site inspection and other appropriate means, that the item to be exported will be used for the purpose for which it was intended and only for the use and benefit of the Cuban people, but this exception shall not apply to donations of medicine for humanitarian purposes to a nongovernmental organization in Cuba.

The following paragraphs outline the licensing policy for Rwanda:

A. A license is required for foreign policy purposes for export to non-governmental forces for use in Rwanda of all arms and related material of all types, regardless of origin, including weapons and ammunition, military vehicles and equipment, paramilitary police equipment, and spare parts for such items. This requirement applies to exports by any person from U.S. terroritory or by any U.S. person in any foreign country or other location to Rwanda. A license is also required for the use of any U.S. aircraft or vessel to supply or transport any such items to non-governmental forces for use in Rwanda.

B. Applications for export or reexport to Rwanda of Crime Control and Detection Commodities will generally be denied to non-governmental forces.

1. Applications for export or reexport to Rwanda of any ECCN ending in “18" generally will be denied.

2. There will be a general policy of denial for export of other listed items.

Analysis of Control as Required by Section 6(f) of The Act

The embargoes on exports to Cuba and North Korea have been administered under the Act and other statutes, and are consistent with the Treasury Department sanctions adopted under the Trading with the Enemy Act, as amended. The latter authority continues in effect by virtue of Sections 101(b) and (c), and 207, of Public Law 95-223 and has been extended annually by the President, pursuant to national interest determinations.

A. The Purpose of the Control

Originally, the embargoes on each of these countries were imposed inter alia for foreign policy purposes. Although the original circumstances that prompted the imposition of controls have changed, present circumstances require that these controls continue. The objective of the embargoes is to demonstrate the unwillingness of the United States to maintain normal trade with these countries until they take steps to improve their behavior and relations with the United States.

Cuba. This embargo came at a time when Cuban actions seriously threatened the stability of the Western hemisphere and the Cuban Government had expropriated property from United States citizens without compensation. Because of its support for insurgent groups that have engaged in terrorism, Cuba was designated as a supporter of terrorism under Section 6(j) of the Act in March 1982. Sanctions against Cuba will be reduced in carefully calibrated ways only in response to positive steps by Cuba toward political and economic reform.

North Korea. North Korea continues to maintain its offensive military capability and to suppress human rights. The planting of a bomb aboard a South Korean airliner by North Korean agents in November 1987 prompted the initial designation in January 1988 of North Korea as a supporter of international terrorism, under Section 6(j) of the Act.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving Intended Foreign Policy Purpose. For Cuba and North Korea, the embargoes have denied these nations the substantial benefits of normal trade relations with the United States. The controls continue to put pressure on the governments of these countries to modify their policies, since the embargoes will not be lifted until a general improvement in relations is achieved. For Rwanda, to fulfill U.S. obligations under an international arms embargo mandated by the United Nations Security Council and help end the fighting and the killing of innocent civilians.

2. Compatibility with Foreign Policy Objectives. For Cuba and North Korea, the controls are a useful complement to U. S. foreign policy in other aspects of our relations with these countries. They encourage the governments to modify their policies, thereby improving their relations with the United States. For Rwanda, these controls are consistent with U.S. foreign policy goals of promoting peace and stability and preventing human rights abuses.

3. Reaction of Other Countries. Although most countries recognize the right of the United States to determine its own foreign policy and security concerns, many countries, particularly the European Union, Canada and Mexico are strongly opposed to the Helms-Burton Act and to the Iran and Libya Sanctions Act. They view these acts as unjustifiable interference in their commercial relations with Cuba, Iran and Libya. The U.S. arms embargo to non-governmental forces for use in Rwanda is consistent with the objectives of the members of the United Nations; no signficant objections to U.S. controls have been noted.

4. Economic Impact on United States Industry.

Cuba. The U.S. Census Bureau reports that total U.S. exports to Cuba in CY 1995 amounted to $5.85 million, up from $4.39 million in 1994 and $2.5 million in 1993. The increase may be attributed to increased exports of donations of food, medicines, and medical supplies to meet humanitarian needs. U.S. exports comprise a tiny percentage of worldwide exports to Cuba, which totaled about $2 billion in 1995, down slightly from $2.02 billion in 1994. The figures for 1993 and 1992 were $1.9 billion and $2.2 billion respectively.[17]

A license is required for the export and re-export of virtually all U.S.-origin commodities and technical data to Cuba. In fiscal year 1995 the Bureau of Export Administration (BXA) approved 83 license applications (for 81 exports and 2 re-exports), with a total value of over $592 million. Excluding licenses for the value of aircraft on temporary sojourn to Cuba (which require export licenses), BXA approved licenses for shipments totaling over $540 million for humanitarian aid in the form of food, medicine, and medical supplies (68 licenses), gift parcels (7), and transiting aircraft (5).

Seven export applications and two re-export applications totaling $10.1 million were returned without action. Three export license applications totaling $1.9 million were denied.

Table 1. Export License Applications Approved for Cuba, FY 1995[18]

Type of Export	No. of Applications	Dollar Value
Humanitarian Aid	68	400,686,880
Gift parcels	7	140,000,300
Aircraft Transiting Cuba	5	51,893,600
Other	3	157,033
Total:	83	$592,737,813

Cuba's economy remains in a severe depression as a result of the loss of massive amounts of economic aid from the former Soviet Bloc. In 1989-93, GDP declined by about 40 percent and import capability fell by about 80 percent, which is reflected in the figures for annual imports and exports during the same period (see Figure 1).

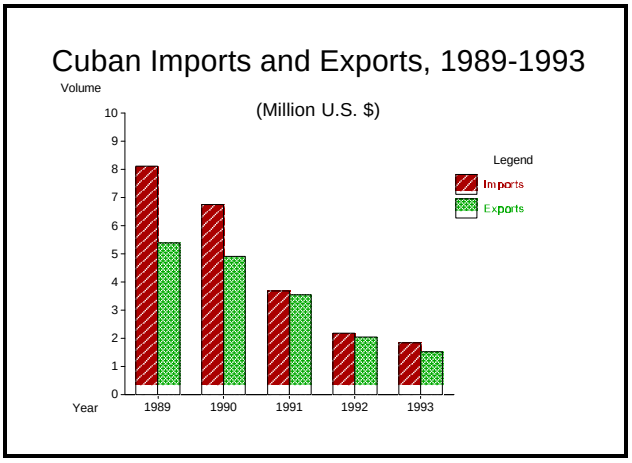

Figure 1

Source: The World Factbook 1994.

Cuba has signed investment-guarantee treaties with a number of countries, including Mexico, Canada, Spain, Italy, Britain, and Russia. Two more are planned for France and the 13-member Caribbean Community (Caricom). In September 1995, the Cuban national assembly amended the law governing foreign investment to create free trade zones, speed approval processes, allow foreign firms to own majority stakes, and open previously restricted sectors, such as real estate and banking, to foreign participation.

Cuba's leaders pin their hopes for economic recovery on generating massive foreign investment, which Cuba is actively courting, with the goal of developing indigenous production of as many import-substituting products as possible. According to Cuban government figures, there are 212 joint ventures underway, worth about $2 billion. U.S. sources estimate that $4.9 billion in

foreign investment has been announced, of which $556 million had been formally committed.[19] Much of this investment is in long-term infrastructure projects that will commit the Cubans to import supporting equipment and supplies from the foreign partners' countries for years to come. The Cuban economy's slow recovery could receive a serious setback from the Helms-Burton Act if the threat of legal action in the United States, or exclusion from the United States, gives pause to potential investors.

Cuba's principal imports during 1994 were fuels ($720.0 million), food products ($430 million), machinery ($240 million), semi-finished goods ($215 million), and chemical products ($175 million). In 1994, Russia provided $209.6 million of fuels; Mexico provided $67.0 million. France provided $104.7 million in food products; China $42.5 million; Canada $30.5 million; The Netherlands $30.2 million. Spain provided $85.9 million in machinery; Italy $19.8 million; China $16.5 million; France $15.4 million; Canada $15.0 million. Spain provided $74.9 million in semi-finished goods; Mexico 31.9 million; China $20.1 million; Russia $17.4. Spain provided $32.4 million in chemical products; Mexico $27.1 million; China $23.2 million; the U.K. $12.8 million.[20]

Cuban imports from most major exporting nations have declined in recent years (see Table 2) along with the Cuban economy's declining ability to produce goods for export and generate foreign exchange reserves. Among major trading partners, only Mexico, Spain and France exported more to Cuba in 1994 than in 1989. Canadian and Chinese exports rose sharply in 1990 but have since declined steadily. Contrary to this trend, French exports to Cuba have more than doubled since 1989. Since 1992 French exports to Cuba consisted primarily of foodstuffs, which comprised 83 percent of total French exports to Cuba in 1993. Grains alone comprised 62 percent of the 1993 total.

The overall economic impact on U.S. industry of the U.S. unilateral trade embargo is significant in view of the historical U.S. dominance of the Cuban market and the proven advantage of U.S. suppliers' proximity to Cuba, but is diminished considerably by Cuba's steadily decreasing import potential. A chronically depressed economy, limited currency reserves, and a limited capacity to generate hard currency severely curtail Cuba's ability to import foreign products. Trade with an economically revitalized Cuba could threaten large numbers of U.S. jobs in certain sectors. Even in its present impoverished state, Cuba could imperil U.S. jobs if trade restrictions are lifted.

In general, the U.S. regions and economic sectors most affected by the trade embargo are southern Florida (particularly the port area of Tampa), producers of agricultural products and other exports of other products that benefit from the cost advantages of U.S.-Cuba proximity (e.g. perishable agricultural products).

The Helms-Burton Act is perceived by our major trading partners as being an impermissible extraterritorial application of U.S. law that violates international law, and U.S. obligations under the World Trade Organization (WTO) Agreement and the North American Free Trade Agreement (NAFTA)’s dispute settlement mechanism. The European Community (EC)

has brought a challenge to Helms-Burton under the WTO Agreement, and in November the WTO Dispute Settlement Body endorsed creation of a panel to hear the case. Panelists have not yet been selected.

The EC, Canada and Mexico have enacted antidote legislation that 1) blocks compliance with, implementation of, or enforcement of Helms-Burton in those countries, and 2) provides a mechanism for recovery of damages ("clawback") suffered as a result of judgments under the Helms-Burton Act in U.S. courts. The damages that may be recovered under the antidote laws are not limited to judgments in U.S. courts, but may include consequential damages that result from the application of Helms-Burton.

However, friction between the United States and the European Union over policy toward Cuba has diminished substantially with adoption by the Europeans of a binding policy that links expanded ties to Cuba to improvements in human rights conditions and advances toward democracy by President Fidel Castro's communist government. The United States viewed the announcement that EU members would evaluate future relations with Cuba according to the ratification and observance of international human rights conventions as an affirmation of the international community's commitment to human rights and democracy.

North Korea. North Korea remains a rigid socialized economy, with a strong emphasis on self-reliance. The agricultural land is collectivized, and state-owned industry produces 95% of the manufactured goods. Heavy industry, including arms production, is emphasized at the expense of consumer goods. Despite improvements in agricultural methods, North Korea has not yet become self-sufficient in food production; indeed, various factors have resulted in chronic food shortages. Increasing shortages of fuels and electric power have resulted in idle factories, fewer exportable items, and less hard currency to buy food and other critical items. Additionally, factory industrial equipment is in a serious state of disrepair because there is no money to better the industrial facilities. North Korea's industrial development remains 15-25 years behind that of South Korea.

The political ideology of national self-reliance and independence has resulted in an international trade share (exports plus imports) of only 12 percent of the GDP, well below the figure of 50-55 percent observed in neighboring South Korea. Traditionally, North Korea has regarded international trade as a necessary evil. Foreign trade has been conducted mainly to obtain essential imports. Exports have never been considered for economic gains in employment or income, but as a means to finance necessary imports.[21] North Korea's total imports average about $1-2 billion per year.

The "necessary" commodities North Korea imports include petroleum, grain, coking coal, machinery and equipment, and consumer goods. As reported by the Korea Trade Promotion Corporation (KOTRA), North Korea's four major trading partners are China, Russia, Japan and South Korea, accounting for almost 70 percent of its total trade (exports plus imports). Other sources (1992 World Trade Database, Major Economic Indicators for N. Korea, 1993) indicate

Iran and Hong Kong are also major contenders in import trade. Russian imports, once a strong portion of North Korean trade, have continued to decline as Russia focuses on its own economic difficulties, and China has supplanted Russia as North Korea's economic lifeline. China's importance in North Korea's trade is in all probability underestimated in available statistics as observers note that a high magnitude ($100 millions) of smuggling occurs between the two countries.[22]

Table 1 illustrates the current trade figures:[23]

Table 1. North Korean Trade 1994
(in US$ millions)

Country	Imports	Exports	Total
China	425	199	624
Japan	170	323	493
South Korea	174*	21*	195
Russia	115*	15*	140
World Totals	**1,269**	**839**	**2,108**

(* KOTRA trade figures at this time do not give import/export values for these countries. These figures are derived from other sources)

Trade statistics from the United Nations provide more detailed information on North Korean imports from many developed countries (unfortunately many countries, including Russia, do not report trade to the United Nations). The top five exporters to North Korea in 1993 according to U.N. data were China ($602 million), Japan ($217 million), India ($61 million), Germany ($47 million), and Singapore ($38 million). Other major exporters were Italy, Ireland, the Netherlands, Brazil, and Thailand. China supplies most of North Korea's needs for grains and petroleum, while North Korea's imports from European countries predominantly consist of chemicals and machinery, and, in the case of Germany, motor vehicles. Ten German companies and Germany's Korean Economic Information Bureau reportedly plan to establish an office in 1995 to promote trade with North Korea. From Japan, North Korea imported mostly textile goods and vehicles; many of the textiles were apparently re-exported back to Japan in the form of finished goods. Many Japanese companies maintain a presence in North Korea awaiting the possibility that a normalization in North Korean-Japanese relations occurs (dependent upon war reparations).

In FY 1996, Commerce approved 39 validated licenses for exports to North Korea, totaling $209,134,369. (Two licenses valued at $4,026 were denied.) This is a decrease in license approvals of more than one billion dollars from FY 1995, but FY 1995 was an exception in that there were license approvals for larger grain shipments of $1 billion or more. The commodities

involved are almost entirely humanitarian items: milk, grains, etc. which are used to relieve increasing famine, and assorted medicinal supplies to aid victims from widespread flood damage.

According to U.S. Census Bureau statistics, U.S. exports to North Korea last year totaled only $5,008,000, of which 84% was cereal. The other commodities exported, in descending order by value, are petroleum, coking coal, machinery, and consumer goods. Overall, North Korea represents an extremely small part of the U.S. exports to the world (0.00086%).

Full implementation of the October 21, 1994 U.S.-North Korean Agreed Framework will facilitate a possible broadening of bilateral relationships during which current restrictions on U.S. trade with North Korea may be reduced. In addition, the United States' status as a founding member of the Korean Peninsula Energy Development Organization (KEDO) foreshadows an increasing role as a trading partner with North Korea. KEDO is the international organization established in March 1995 to implement the Agreed Framework. Under the Agreed Framework, North Korea agreed to freeze and eventually dismantle its existing graphite-moderated nuclear program. In return, KEDO will provide North Korea with two light water reactors (LWRs) developed from U.S. technology. In addition, KEDO is providing 500,000 metric tons of heavy fuel oil to North Korea annually until the first LWR plant goes on line. Further implementation of the provisions of the Agreed Framework should also broaden North Korea's economic contacts with the international community in general.

Because of North Korea's strong political ideology emphasizing self-reliance, U.S. export sanctions have generally had a minimal effect on U.S. exports. In the absence of the U.S. embargo, some United States industries (vehicles, machinery, chemicals) could have potential export sales of up to $50 million per year, as determined by current trade with European suppliers. Following the signing of the nuclear accord, opportunities for limited economic activity by some U.S. companies may now be possible. Restrictions on travel to North Korea and per diem expenditure limits have been liberalized. Permission has been given to purchase certain strategic minerals from North Korea, and special licenses will be granted in connection with the light water reactor project, ranging from technology and equipment for the reactors to the sale and transportation of oil on an interim basis. The potential for some profit exists, but the sanctions regime and the inherent risks of doing business in/with a command economy have discouraged most U.S. firms from doing business there.

Understanding that it must tap world markets to satisfy critical economic needs, North Korea has established the Rajin-Sonbong Free Trade zone to promote trade with other countries. However, the North Korean leaders appear fearful of too much foreign influence, thus the trade zone remains in a high-security area, limiting access to markets. Additionally, at present this area has a lack of infrastructure. However, if the trade zone is at all successful, U.S. firms could be at a disadvantage vis-a-vis other nations due to U.S. economic sanctions.

Rwanda. The arms embargo has had very little impact on U.S. industries.

5. Enforcement of Control. The problems associated with detecting unauthorized exports to embargoed countries are more difficult than with other export controls, because the controls on exports to embargoed countries cover virtually all U.S.-origin goods, including consumer items that do not attract enforcement attention, either in the United States or overseas. However, in the case of direct exports, an embargo against a small number of countries is easier to enforce, because the concept of a total embargo is generally understood and supported by the public. We can count on voluntary cooperation from most U.S. exporters. Further, a total embargo requires little expertise to differentiate between those goods that are and those that are not subject to control.

Cuba. Controls on exports under the CDA of non-U.S.-origin goods from foreign subsidiaries of U.S. firms present certain enforcement difficulties. Foreign governments have shown little inclination to cooperate with, and indeed some hostility to, our enforcement efforts. On the other hand, the Department has the authority to deny export privileges of firms and individuals overseas who violate U.S. controls. While a denial order can be very effective, use of that enforcement tool against a violator of CDA-based controls can be expected to provoke strong reaction from the home country of the firm which is the object of the order.

Rwanda. No significant enforcement problems have occured or are foreseen.

C. Consultation with Industry

Comments received by Commerce from industry either objected to the unilateral nature of U.S. sanctions, or to the extraterritorial reach of U.S. sanctions, particularly in the Iran and Libya Sanctions Act of August 1996 and in the Helms-Burton Act of March 1996.

In particular, industry comments asserted that the extraterritorial reach of U.S. laws and regulations can and does impact the reputation of U.S. vendors as reliable suppliers. Although there is much interest in U.S. technology, customers often opt for a comparable offering from a foreign competitor because of the constraints imposed by U.S. export regulations.

D. Consultation with Other Countries

The Administration has worked hard to garner support from other countries for both the Helms-Burton Act and the Iran and Libya Sanctions Act.

E. Alternative Means

Comprehensive embargoes are designed to make the strongest possible statement against a particular country's policies by imposing the harshest trade conditions possible.

Restrictions on exports supplement other actions taken by the United States Government that are intended to strengthen the embargo. Among the more prominent other actions that can and have been taken are severing of diplomatic relations, banning imports into the United States, seeking United Nations denunciations and curtailing or discouraging bilateral educational, scientific, or cultural exchanges.

F. Foreign Availability

Since Cuba and North Korea are also terrorist-designated countries, as well as embargoed, the foreign availability provision does not apply to items determined by the Secretary of State to require control under Section 6(j) of the Act.[24] Cognizant of the value of such controls in emphasizing the U.S. position toward countries supporting international terrorism, Congress specifically excluded them from foreign availability assessments otherwise required by the Act.

For Rwanda, the foreign availability provisions of the Act do not apply to export controls imposed in compliance with international obligations of the United States under Section 6(i) of the Act.

6. Libya [Section 746.4(785A.7)]

Export Control Program Description And Licensing Policy

On August 5, 1996 the President signed into law the "Iran and Libya Sanctions Act." The threats posed by Iran and Libya are serious and urgent. By limiting the ability of these countries to develop their petroleum resources, this act aims to induce Iran and Libya to change their behavior, and to restrict the finances they have available to develop weapons of mass destruction and support terrorism. The President can choose two among seven sanctions to discipline violators, one of which is export sanctions. The "Iran and Libya Sanctions Act" is the most recent action in a long history of difficult U.S. relations with Libya.

In January 1986, the President imposed sanctions against Libya under the authority of the International Emergency Economic Powers Act. The Department of the Treasury administers the export restrictions under the Libyan Sanctions Regulations (31 CFR Part 550). Since February 1, 1986, exports from the United States and transshipments via third countries to Libya require authorization in the form of a general or specific license from that Department[25].

On November 14, 1991, a grand jury in the U.S. District Court for the District of Columbia returned an indictment against two Libyan nationals accused of sabotaging Pan Am

103. On the same day, Scottish authorities obtained a petition warrant for the two Libyans on similar charges.

On January 21, 1992, the United Nations Security Council (UNSC) adopted Resolution 731, which condemned the bombings and urged Libya to fully and effectively respond to requests that the United States, the United Kingdom, and France had made upon it in connection with the investigation, apprehension, and prosecution of those responsible for the bombings. On March 31, 1992, after concluding that Libya had not made satisfactory responses to such requests, the UNSC adopted Resolution 748, which imposed mandatory sanctions on Libya, effective April 15, 1992, until such time as the Security Council determined that Libya had complied with the requests made by the United States, the United Kingdom, and France, and renounced terrorism. Resolution 748 requires U.N. member states to prohibit, by their nationals or from their territory, *inter alia* the supply of any aircraft or aircraft components to Libya or the provision of engineering and maintenance servicing of Libyan aircraft. Resolution 748 also requires member states to prohibit, by their nationals or from their territory, the provision of arms and related material of all types, including the sale or transfer of weapons and ammunition, military vehicles and equipment, paramilitary police equipment and spare parts for such equipment. Finally, Resolution 748 requires member states to deny any flight in their airspace, or landing or taking off in their territory, by aircraft which are flying to or from Libya, to prevent operation of Libyan Arab Airlines and to reduce significantly Libyan diplomatic representation abroad.

Continued Libyan non-compliance with UNSC demands resulted in the adoption by the UNSC of Resolution 883 on November 11, 1993, which imposed additional sanctions, including a limited assets freeze, and provisions closing certain gaps in the civil aviation sanctions which had been put into place by Resolution 748. The Resolution required States to freeze any funds or financial resources owned or controlled by the Government of Libya or a Libyan undertaking and ensure that such funds, or any other funds or financial resources, are not made available to the Government of Libya or any Libyan undertaking. Also, the Resolution required member states to prohibit the provision to Libya, by their nationals or from their territory of materials destined for the construction, improvement or maintenance of Libyan civilian or military airfields and associated facilities and equipment, of any engineering or other services or components destined for the maintenance of any Libyan civil or military airfields, with certain exceptions, and of certain oil terminal and refining equipment, as listed in the Addendum to this chapter. Furthermore, Resolution 883 required that States immediately close all Libyan Arab Airlines offices, and prohibit any commercial transactions with Libyan Arab Airlines, and prohibit, by their nationals or from their territory, the entering into or renewal of arrangements for the making available for operation within Libya of any aircraft or aircraft components.

Libya is one of the countries designated by the Secretary of State as a repeated supporter of acts of international terrorism.

The Department of Commerce has maintained foreign policy controls on exports and reexports to Libya since the 1970s. While the control on exports to Libya under the Export

Administration Regulations (EAR) remain in effect, the Department has determined, in order to avoid duplicate licensing requirements, that licenses issued by the Treasury Department for direct exports and transshipments to Libya constitute authorization under the EAR. However, exports or reexports to Libya not covered by the Treasury regulations continue to require Commerce authorization. Requests for such authorization are reviewed under the policies set forth in sections A through E below.

In December 1993, the President instructed the Commerce Department to reinforce the trade embargo on the reexport to Libya of United States-origin items. The Commerce Department thereupon tightened licensing policy on the reexport of items covered by United Nations Security Council Resolutions 748 and 883.

A. Reexport authorization is required for foreign policy purposes for export from third countries to Libya of all United States-origin goods or technical data, <u>except</u> for:

1. Medicine and medical supplies;

2. Food and agricultural commodities;

3. Items permitted under certain special purpose general licenses; and

4. The foreign non-strategic products of United States-origin technical data; or

5. The foreign strategic products of United States-origin technical data exported from the United States before March 12, 1982.

B. Applications for reexport authorization will generally be denied for:

1. Off-highway wheel tractors of carriage capacity of 10 tons or more, except for exports of such tractors in reasonable quantities for civil use, to the extent consistent with U.N. Resolution 883;

2. aircraft (including helicopters), and specified parts and accessories;

3. other commodities and related technical data controlled for national security purposes, including controlled foreign-produced products of United States technical data exported from the United States after March 12, 1982, and oil and gas equipment and related technical data not readily available from non-United States sources;

4. goods and technical data destined for the Ras Lanuf Petrochemical Processing Complex, <u>except</u> for (a) exports or reexports pursuant to a contractual arrangement in effect prior to December 20, 1983; and (b) the reexport of goods or technology already outside the United States on December 20, 1983, which will be reviewed on a case by case basis; and

5. items subject to UNSC Resolution 748 of March 30, 1992 (effective April 5, 1992) and Resolution 883 of November 11, 1993 (effective December 1, 1993).

C. Exceptions are considered on a case-by-case basis for:

1. reexports of commodities or technical data involving a contract in effect prior to March 12, 1982, where failure to obtain an authorization would not excuse performance of the contract;

2. the reexport of goods or technology subject to national security controls already outside the United States on March 12, 1982, or the export of foreign products incorporating such items as components; or

3. the use of United States-origin components incorporated in foreign origin equipment and constituting 20 percent or less by value of that equipment.

D. All other reexports will generally be approved, subject to any other licensing policies applicable to a particular transaction and subject to U.N. Resolutions.

Part Two: Analysis Of Control As Required By Section 6(f) Of The Act

A. The Purpose of the Control

The purpose of export and reexport controls toward Libya is to demonstrate United States opposition to, and to distance the United States from, that nation's support for acts of international terrorism, international subversive activities, and intervention in the affairs of neighboring states. They also reinforce implementation of United Nations Security Council resolutions.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving Intended Foreign Policy Purpose. The controls deny to Libya United States-origin national security-controlled items, oil and gas equipment unavailable from outside sources, and items for the Ras Lanuf Petrochemical complex. The controls restrict Libyan capability to use United States-origin aircraft, aircraft components and accessories, and off-highway tractors in military ventures, especially in their efforts to destabilize nations friendly to the United States. Most recently, reexport prohibitions were reinforced for certain oil terminal and refining equipment, plus items used to service or maintain Libyan aircraft and airfields. The combined effect of these controls has been to prevent a United States contribution to Libya's ability to engage in activities detrimental to United States foreign policy. Further, they have sent a clear signal that the United States is unwilling to permit trade in light of Libya's behavior.

2. Compatibility with Foreign Policy Objectives. Because these controls are intended to prevent a United States contribution to Libyan economic activities, and force Libya to abide by

international law and thereby diminish Libya's ability to undermine regional stability, along with its support for international terrorism, they are consistent with United States foreign policy goals and with policies on sales to Libya.

3. Reaction of Other Countries. As indicated by the adoption of United Nations Security Council Resolutions 731, 748 and 883, there is a general understanding by other countries of the threat posed by Libya's policies of subversion, terrorism, and military aggression. When the bulk of U.S. controls were imposed in 1986, we explained our policies to other governments and urged them to adopt comparable policies. There was some favorable response, but no country has matched the extent of United States controls. The EU and the seven major industrialized countries in 1986 approved unanimous steps against Libya including restrictions on Libyan officials in Europe and a ban on new arms sales. There has generally been good implementation by the international community of the sanctions imposed by the U.N. Security Council. We monitor all trade with Libya closely and bring any noncompliance with the most recent U.N. action swiftly to the attention of appropriate foreign authorities.

4. Economic Impact on United States Industry. In FY 1996 Commerce issued one re-export authorization for commodities valued at $19,692. Commerce denied applications for 14 re-export authorizations for commodities valued at $8 million. Five other re-export applications worth $11.1 million were returned without action. U.S.-origin products comprised a minute percentage of Libyan imports. The U.S. Census Bureau reports that total U.S. exports to Libya in 1995 amounted to approximately $241,000, down from as much as $310.2 million in 1985.

U.S. exports to Libya have declined steadily since 1975, when strong sanctions were first imposed. Since then export authorizations have for the most part been issued only for shipments required to fulfill pre-1982 contractual obligations. Annual U.S. exports and re-exports to Libya fell from $860 million in 1979 to less than $1 million annually from 1987 through 1994.

The Libyan economy depends primarily upon revenues from the oil sector, which contributes practically all export earnings and about one-third of GDP. (Source: The World Factbook 1995.) Windfall revenues from the rise in world oil prices in late 1990 improved Libya's foreign payments position and resulted in a current account surplus. The non-oil manufacturing and construction sectors, which account for about 20 percent of GDP, have expanded from processing mostly agricultural products to include petrochemicals, iron, steel, and aluminum. Although agriculture accounts for only five percent of GDP, it employs about 20 percent of the labor force. Climatic conditions and poor soils severely limit farm output, and Libya imports about 75 percent of its food requirements.

UN sanctions imposed in April 1992 have not yet had a major impact on the economy because Libya's oil revenues generate sufficient foreign exchange that, along with Libya's large currency reserves, sustain food and consumer goods imports as well as equipment for the oil industry and ongoing development projects. In 1994, Libyan imports totaled $6.9 billion (f.o.b., estimated), compared to exports of $7.2 billion (f.o.b., estimated). The sanctions have, however, made an effect in painting Libya as a rogue nation.

Libya's leading trading partners in 1995 were Italy and Germany, which were Libya's largest suppliers of imported goods as well as Libya's leading export markets. Nearly all of Libya's exports to these two countries are in crude oil. Germany and Italy in turn have invested heavily in Libyan oil production, and German firms plan major new investment. Germany's exports to Libya consist mainly of machinery (30 percent of total export value) and agricultural-related goods (19 percent). The remainder are largely vehicles, electrical/electronic equipment, metal stock, and chemical processing equipment. Italy primarily exports refined petroleum products, cereal products, and animal feed.

Libya's principal imports, in dollar value, from all major industrialized nations include: cereals and cereal products (France, Canada), iron and steel (Japan, France, Italy), road vehicles (Germany, Japan), general industrial machinery and equipment (Germany, U.K.), specialized machinery (Germany, Italy), power generating machinery (Germany), chemical materials and products (U.K.), and animal feed (Italy).

Table 1. Libyan Imports from Selected Countries, 1990-95 (million U.S. $)

Country	1990	1991	1992	1993	1994	1995**
Leading Industrialized Nations						
Canada	45.43	49.60	66.85	69.70	48.61	n.a.
France	378.18	334.01	322.28	362.26	255.70	214
Germany*	751.18	691.43	609.22	761.85	638.48	466
Italy	1,060.54	1,363.76	1,074.23	1,189.30	n.a.	719
Japan	137.05	138.53	140.15	152.06	n.a.	n.a.
U.K.	438.22	451.47	400.72	411.42	295.44	n.a.
U.S.	n.a.	1.2	1.2	1.1	2.5	n.a.
Other Nations						
Belgium/Luxemburg	148.25	153.05	96.58	151.68	n.a.	n.a.
China	n.a.	n.a.	86.62	45.24	29.51	23
Denmark	36.15	24.44	17.89	20.72	n.a.	n.a.
Greece	67.02	68.49	62.11	64.87	n.a.	n.a.
Ireland	49.19	17.62	18.52	30.31	n.a.	n.a.
Netherlands	228.07	188.37	171.36	236.60	n.a.	n.a.

Country	1990	1991	1992	1993	1994	1995**
Leading Industrialized Nations						
Portugal	18.19	1.05	4.16	2.53	n.a.	n.a.
Spain	65.63	68.41	38.87	76.51	118.80	n.a.

* 1990 figures are for West Germany.
** First three quarters of 1995 only.

Source: Figures for 1990 to 1994 are from United Nations Trade Statistics, as reported by exporting countries. 1995 figures were reported by the U.S. Embassy in Bonn.

So far, U.S. unilateral sanctions are believed, even by some of their critics, to have had only a modest effect on American business in terms of lost revenue. Unilateral sanctions, by various estimates, have deprived the U.S. economy of less than one-tenth of 1 percent of the nation's annual income in recent years.[26]

In August 1996 the President signed into law the Iran and Libya Sanctions Act of 1996 in an effort to deny Iran and Libya the ability to support acts of international terrorism and develop weapons of mass destruction. The Act requires the President to impose certain congressionally-mandated economic sanctions against any U.S. or foreign persons investing $40 million or more in Iran's or Libya's energy sector or violating certain United Nations Security Council resolutions against Libya. The sanctions apply only to new investments made after August 5, 1996 with the goal of "directly and significantly" contributing to Iran's or Libya's ability to develop their petroleum resources.

Most foreign governments believe that the Act unfairly inhibits free trade and access to markets. Some U.S. business groups, including the European-American Chamber of Commerce, have denounced the bill as antithetical to U.S. economic interests because of the danger of foreign government retaliation.[27]

5. Enforcement of Control. It is not possible to monitor all trade with Libya in non-strategic items. However, it appears that, in light of the widespread perception of Libya as a supporter of international terrorism, along with U.N. sanctions, there is substantial voluntary compliance on the part of subsidiaries of U.S. multinational companies. The controls on aircraft traditionally have posed enforcement problems because in reality they have resulted in a complete embargo of all reexports of aircraft parts, components and avionics, including the servicing of U.S.-origin aircraft, or foreign-manufactured aircraft with any U.S. content. The 1992 and 1993 U.N. Security Council Resolutions, which imposed an international embargo on civil aviation items to Libya, assisted the United States in its efforts to maintain these controls. The reexport controls on aircraft parts to Libya require significant enforcement and diplomatic resources. Commerce will continue to aggressively enforce all controls concerning Libya.

C. Consultation with Industry

Commerce received no comments on Libya from the request for public comments. However, past industry comments indicated that the controls had minimal impact on the Libyan oil and petrochemical industry, while trade between the United States and Libya had been virtually eliminated. The most recent U.N. action calls on all parties to prohibit sales of certain oil-related equipment.

D. Consultation with Other Countries

Extensive consultation with other nations has taken place under U.N. auspices. The United States Government also intends to continue consulting friendly governments in order to achieve full compliance with U.N. sanctions.

E. Alternative Means

These controls complement diplomatic measures that have been, and will continue to be used to influence Libyan behavior. In January 1986, the United States Government established a comprehensive trade embargo against Libya which remains in force. All direct trade with Libya is prohibited and certain Libyan Government-owned or -controlled assets subject to U.S. jurisdiction--estimated at $1 billion--are frozen by the Department of Treasury.

F. Foreign Availability

The foreign availability provision does not apply to items determined by the Secretary of State to require control under Section 6(j) of the Act.[28] Cognizant of the value of such controls in emphasizing the United States position toward countries supporting international terrorism, Congress specifically excluded them from foreign availability assessments otherwise required by the Act. The foreign availability of items controlled under Section 6(a) has been considered by the Department. In general, numerous foreign sources of commodities similar to those subject to these controls are known, especially for items controlled by the United States.

ADDENDUM

Reexports to Libya

Effective December 1, 1993

A. Oil Terminal and Refining Equipment

1. Pumps of medium or large capacity whose capacity is equal to or larger than 350 cubic meters per hour and drivers (gas turbines and electric motors) designed for use in the transportation of crude oil and natural gas.

2. Equipment designed for use in crude oil export terminals, as follows:

- Loading buoys or single point moorings;
- Flexible hoses for connection between underwater manifolds (plem) and single point mooring and floating loading hoses of large sizes (from 12-16 inches);
- Anchor chains.

3. Equipment not specially designed for use in crude oil export terminals, but which because of its large capacity can be used for this purpose, as follows:

- Loading pumps of large capacity (greater than 4000 m3/h) and small head (10 bars);
- Boosting pumps within the same range of flow rates;
- In line pipeline inspection tools and cleaning devices (i.e. pigging tools) (16 inches and above);
- Metering equipment of large capacity (1000 m3/h and above).

4. Refinery equipment, as follows:

- Boilers meeting American Society of Mechanical Engineers 1 standards;
- Furnaces meeting American Society of Mechanical Engineers 8 standards;
- Fractation columns meeting American Society of Mechanical Engineers 8 standards;
- Pumps meeting American Petroleum Institute 610 standards;
- Catalytic reactors meeting American Society of Mechanical Engineers 8 standards; and
- Prepared catalysts including catalysts containing platinum and catalysts containing molybdenum.

5. Spare parts for any item above.

B. Items Used to Service or Maintain Aircraft and Airfields

1. Any aircraft or aircraft components.

2. Engineering or maintenance servicing of any aircraft or aircraft components.

3. Any materials destined for the construction, improvement or maintenance of Libyan civilian or military airfields and associated facilities and equipment. **Note:** Emergency equipment and equipment and services directly related to civilian air traffic control are exempt from this control and reexport applications for such will continue to be reviewed on a case-by-case basis.

4. Any engineering or other services or components destined for the maintenance of any Libyan civil or military airfields and associated facilities and equipment. Note: Emergency equipment and equipment and services directly related to civilian air traffic control are exempt from this control and reexport applications for such will continue to be reviewed on a case-by-case basis.

5. Any advice, assistance or training to Libyan pilots, flight engineers, or aircraft and ground maintenance personnel associated with the operation of aircraft and airfields within Libya.

7. Chemical Precursors and Associated Equipment and Technical Data [Sections 742.2, 744.4 and 744.6(778A.8 and 778A.9)]

Export Control Program Description And Licensing Policy

The United States has continued efforts to curb proliferation of chemical weapons by maintaining national controls and by promoting multilateral harmonization of export controls through the Australia Group (AG). The AG is an informal forum of 30 nations (South Korea joined in 1996), cooperating to prevent and impede chemical and biological weapons proliferation through information exchange, harmonized export controls, and other diplomatic means. The European Union also is represented at the AG's annual plenary meeting. (See table in Appendix II for complete list of members.)

On October 19, 1995, Commerce issued the final rule to implement the AG's three-tiered approach to controlling exports of chemical mixtures containing an AG-controlled chemical weapon (CW) precursor. This regulation: 1) provided relief to the chemical industry from the previous requirement to apply for licenses for the de minimum threshold concentration on a solvent-free basis, and 2) streamlined controls and reporting requirements on sample chemical shipments.

At the October 1996 AG plenary session, the members discussed the chemical mixtures rule which uses a solvent free basis to compute the percentage of CW precursor and agreed to meet intersessionally to review member country proposals to modify the solvents rule. The session also covered many other topics, including 1) the AG's role once the Chemical Weapons Convention (see next paragraph) enters into force, 2) the "no undercut" policy and "catch-all" controls, 3) AG membership, and 4)biological controls and the Biological Weapons Convention Review Conference (see Part 8 of this report).

The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, known as the Chemical Weapons Convention, (CWC) was signed by the United States on January 13, 1993. Since the required 65 countries have ratified the CWC by the end of October 1996, it will enter into force on April 29, 1997.

The Convention was scheduled for a Senate vote on providing its advice and consent to ratification on September 14, 1996, but was withdrawn from consideration on September 12, 1996. The President considers ratification of the CWC as a high priority objective and wants the United States to be a State Party when it enters into force. Accordingly, the Administration encourages the Senate to schedule a ratification vote as early as possible in 1997 in order to continue U.S. leadership in the CW non-proliferation arena.

The CWC will ban the development, production, stockpiling, and retention of chemical weapons (CW) and will support the economic viability of the U.S. chemical industry. The CWC will also prohibit the direct or indirect transfer of CW. The CWC trade restriction provisions are compatible with existing AG-related export licensing regulations. The CWC will provide another tool for stemming the proliferation of chemical weapons.

In 1995 and 1996, the Department has made significant progress in planning for the implementation of the CWC. In April, 1995, the Department field-tested draft CWC data declarations with nine chemical companies. This exercise provided an opportunity for the chemical industry to critique the draft instructions, the format, and the forms, and to develop a time estimate for completing the declarations. In general, the companies commented favorably on the clarity and user-friendliness of the forms and suggested minor modifications to further enhance their utility. During this period, the Department has worked closely with chemical industry associations, including the Chemical Manufacturers Association and the Synthetic Organic Chemical Manufacturers Association, on CWC industry-related issues.

The licensing requirements for chemical precursors and associated equipment and technical data are as follows:

A. A license is required for the export to most destinations[29] of 54 dual-use chemicals and related technical data identified as chemical weapons precursors by the AG. (Chemical warfare agents deemed to have direct military application are controlled by the State Department under the International Traffic in Arms Regulations.)

A license is required for the export to specified destinations of certain equipment and related technical data that can be used in the production of chemical weapon precursors or chemical warfare agents. These destinations are: Bulgaria, People's Republic of China, Cuba, Middle East,[30] Mongolia, Myanmar (Burma), North Korea, Southwest Asia,[31] the geographical area formerly known as the Soviet Union[32], Taiwan and Vietnam.

A license is also required for the export of any commodity, software, or technical data, when the exporter knows that it will be used in the design, development, production, stockpiling,

or use of chemical weapons in or by one of the above- listed countries. In addition, the Department may inform the exporter that a validated license is required because there is an unacceptable risk of use in, or diversion to, a CBW project anywhere in the world.

A license is required for the export to most destinations (see endnote 1) of technical data for facilities designed or intended to produce any of the controlled chemicals.

Licensing restrictions apply to certain forms of "knowing" participation and support by United States persons, including foreign branches of United States companies, in chemical weapons activities in the countries of concern specified in the regulations. The restrictions apply to the export, reexport or transfer of <u>any</u> item, including foreign origin items, by a United States person where the person knows the item will be used in the design, development, production, stockpiling, or use of chemical weapons in such countries. Support activities requiring a license include financing, freight forwarding, transportation, and other comparable assistance by which a person facilitates an export, reexport or transfer. In addition, no United States person may perform any contract, service, or employment knowing it will assist in chemical weapons activities in a country of concern. There also are limits on a United States person's participation in the design, construction, or export of whole chemical plants.

B. Applications for export licenses will be considered on a case-by-case basis to determine whether the export would make a material contribution to the design, development, production, stockpiling, or use of chemical weapons. When an export is deemed to make such a contribution, the application will be denied.[33]

Analysis of Control as Required by Section 6(f) of The Act

A. The Purpose of the Control

The purpose of these controls is to prevent U.S. contribution to, and to support multilaterally coordinated efforts to control the proliferation and use of chemical weapons. Exports from the United States are denied when there is a significant risk that they will be used for chemical weapon purposes.

These controls implement some of the measures specified in Executive Order 12735 of November 16, 1990, and its successor, Executive Order 12938 of November 14, 1994, and the Enhanced Proliferation Control Initiative (EPCI) announced by then President Bush on December 13, l990. The Administration fully supports all of these EPCI measures.

These controls advance U.S. implementation of multilateral export control commitments made by members of the AG to further nonproliferation objectives. They also advance the goals of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, under which Parties are prohibited from using chemical and biological weapons in warfare, and are fully compatible with the object and

purpose of the CWC. These multilateral export controls on items particularly useful in the productions of chemical weapons help limit the destabilizing spread of chemical weapons.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The 54 chemicals and the equipment and technical data covered by these controls have many commercial uses and are widely available from foreign sources. Many of the major sources of these items are in industrialized countries that are members of the AG. While it is not expected that export controls alone can prevent the proliferation of chemical weapons, these controls strengthen United States efforts to stem the spread of such weapons. Accordingly, the Secretary has determined that these controls are likely to achieve the intended foreign policy purpose.

2. Compatibility with Foreign Policy Objectives. In extending these controls, the Secretary has determined that the controls are compatible with the foreign policy objectives of the United States. The United States has a strong interest in remaining in the forefront of international efforts to stem the proliferation of chemical weapons and has made multilateral commitments to do so. These controls are compatible with United States' goals of preventing American contribution to the spread of chemical weapons and reducing the ability of countries of concern to obtain the means for coercive destabilization. They are also compatible with U.S. multilateral and bilateral non-proliferation cooperation and obligations that the United States expects to undertake under the CWC, upon ratification by the U.S. Senate.

3. Reaction of Other Countries. The Secretary has determined that the reaction of other countries to these controls by the United States is not likely to render the controls ineffective in achieving the intended foreign policy purpose or to be counterproductive to United States foreign policy interests. In 1996, the United States continued to consult with the AG and other nations on the growing problem of chemical weapons proliferation and terrorism. The AG continues to urge all countries to take necessary steps to ensure that they are not contributing to the spread of chemical weapons.

In October 1996, South Korea's application for membership to the AG was accepted. The AG will continue to consider potential new members, as well as continue its outreach effort to nonmembers. We encourage all countries to implement an effective export control system which includes covering the items on the AG control lists, as well as forgoing any CW activities or programs. Because the AG’s membership consists of the major chemical producers and traders in the world and because it has a "no undercut policy," which commits the other AG members to honor another member's denial, other member countries' actions will not undermine U.S. foreign policy or commercial interests.

4. Economic Impact on United States Industry. The Secretary has determined that the potential impact of these export controls on the United States' economic position is minimal as borne out by our export licensing statistics. In FY 1996, 616 license applications were approved for export and reexport of controlled chemical precursors with a value of $265 million. Only one

of these applications was denied for $222. For chemical production equipment, 85 export license applications were approved valued at $13.3 million, while only two export license applications were denied with a value of $5,300.

These statistics also demonstrate that AG export controls do not undermine the legitimate economic or technological development of any country. Rather they are consistent with Article I of the CWC which prohibits assistance of any type to any country's CW program.

5. Enforcement of Control. Chemical controls pose problems for Commerce enforcement personnel because of the vast size, dispersion, diversity, and specialized nature of the dual-use chemical industry. In addition, enforcement officers can be exposed to personal safety risks when seizing and inspecting chemical materials.

To meet the challenge of effective enforcement of these controls, Commerce has redirected resources toward preventive enforcement, with particular attention to Shipper's Export Declarations to ensure that the products labeled “No License Required” (NLR) are in fact eligible for unlicensed shipment. Also, Commerce conducts an extensive on-going outreach program to educate companies about export controls, and to heighten their awareness of "red flags" that may indicate potentially risky transactions. This program is an important component of Commerce's efforts to prevent companies from illegally exporting dual-use products which can be used to make chemical weapons.

C. Consultation with Industry

The Department has sought the views of a broad cross-section of industry by consulting with various advisory committees, trade associations and individual firms. (For industry consultations regarding the CWC see Section E, "Alternative Means".)

D. Consultation with Other Countries

These U.S. controls are consistent with the multilateral export control criteria of the 30 member-nation AG, which includes many of the world's major chemical producers and traders. A number of non-AG countries -- including Bulgaria, Russia, and Ukraine -- have taken steps to adopt AG-type controls. The U.S. has actively encouraged non-AG participants to adopt AG controls. The United States continues to encourage harmonization of export control provisions among AG participants to ensure a level playing field for U.S. exporters.

E. Alternative Means

Alternative means to curtail chemical weapons proliferation, such as diplomatic approaches, do not obviate the need for these controls. Diplomatic means alone are not likely to prevent attempts by countries intent on acquiring chemical weapons or to obtain materials for the production of chemical weapons. Some of the additional means that have been and will continue to be used in an attempt to curb the illegal use and spread of chemical weapons are:

bilateral diplomatic approaches to countries that are seeking to acquire chemical weapons or are furnishing materials and assistance for chemical weapons production;

multilateral cooperation with countries concerned about the use and proliferation of chemical weapons;

U.S. legislation - The Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 (Title III, Pub. L. 102-182) provides for the imposition of sanctions on foreign entities and countries for certain kinds of chemical and biological weapons related activity. Sanctions have been imposed on certain entities for chemical weapons-related activities; and

public statements by United States officials condemning the use of chemical weapons and drawing attention to the dangers of increased chemical warfare capabilities.

F. Foreign Availability

Past reviews conducted by Commerce revealed that there was availability from non-AG countries for a wide range of AG chemical precursors and production equipment. Some producing countries have export controls on certain AG-controlled items. Non-AG suppliers of precursors and/or related production equipment include Brazil, Chile, Colombia, India, Mexico, PRC, South Africa, former Soviet Union, Taiwan, Thailand, and Turkey. However, most of these countries have signed the CWC and will take steps to prevent CW proliferation under this treaty.

8. Biological Agents and Associated Equipment and Technical Data [Sections 742.2, 744.4 and 744.6(778A.8 and 778A.9)]

Export Control Program Description And Licensing Policy

The Convention on the Prohibition on the Development Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC), which entered into force in 1975, is an international arms control agreement among 139 nations that bans the development, production, stockpiling, acquisition, or retention of biological agents or toxins that have no justification for prophylactic, protective or other peaceful purposes. However, unlike other arms control agreements, the BWC did not include a regime to monitor the compliance of participating state parties. It was not until the threatened use of Biological Weapons (BW) by Iraq on U.S. and Allied troops during the Gulf War that a number of countries begin to consider the need for additional BWC measures to help detect and discourage the use of BW.

In September 1994 a BWC Special Conference established an international Ad Hoc Group with the mandate to develop a legally binding instrument to strengthen the effectiveness of the BWC. Over the past two years this group has held six meetings to define elements that could be used to strengthen the BWC. Elements under consideration included, but were not limited to,

mandatory data declarations, on-site inspections, enhanced information exchange, and a permanent BWC international oversight organization.

Throughout the year Commerce worked closely with various industry associations, including the Pharmaceutical Manufactures Association (PhRMA), the Biotechnology Industry Organization, and the Animal Health Institute on issues being discussed at the BWC Ad Hoc Group. Commerce organized and participated in numerous meetings with industry and in mock inspection exercises.

On March 25, 1996, based on the decisions of the Australia Group, Commerce updated the Biological Control List for the first time in three years. These changes included:

implementing new nomenclatures for several pathogens,
modifying the wording and clarification of terms for biological items,
liberalizing BW export controls on immunotoxins,
revising technical parameters for fermenters, cross-flow filtration equipment, and chambers.

Commerce also participated in the interagency Culture Collection Committee. The Antiterrorism and Effective Death Penalty Act of 1996 required the Administration to take certain steps to better address the potential threats of biological terrorism. The Center for Disease Control within the U.S. Department of Health and Human Services led the interagency group to develop plans that would ensure that public safety is protected without encumbering legitimate scientific and medical research in the United States. On June 10, 1996, the Committee published in the Federal Register a proposed rule which places additional shipping and handling requirements on facilities involved in interstate commerce that transfer or receive selected agents capable of causing substantial harm to human health. It designed the rule to: 1) collect and provide information on biological facilities where agents are transferred, 2) track the domestic transfer of these specific agents, and 3) establish a process for alerting appropriate authorities if an unauthorized attempt is made to acquire these agents.

Finally, Commerce restructured the Materials Technical Advisory Committee to include a biotechnology subgroup to provide the technical input needed to understand the potential impact of proposed measures on industry.

The licensing requirements for biological agents and associated equipment and technical data are derived from the AG and are as follows:

A. A license is required for the export to all destinations, except Canada, of biological agents and related technical data consisting of viruses, viroids, bacteria, toxins, fungi, protozoa, and genetically modified forms that could be used in the production of biological weapons.[34]

A license is required for the export to specified countries of certain dual use equipment and related technical data that can be used in the production of biological weapons. The countries

to which this requirement applies are: Bulgaria, People's Republic of China, Cuba, Middle East,[35] Myanmar (Burma), North Korea, Southwest Asia,[36] the geographical area known formerly as the Soviet Union,[37] Taiwan, Mongolia, and Vietnam.

A license is also required for the export of any commodity, software, or technical data, when the exporter knows that it will be used in the design, development, production, stockpiling, or use of biological weapons in or by one of the above-listed countries. In addition, the Commerce Department may inform the exporter that a validated license is required because there is an unacceptable risk of use in, or diversion to a CBW project, anywhere in the world.

Licensing restrictions apply to certain forms of "knowing" participation and support by U.S. persons, including foreign branches of U.S. companies, in biological weapons activities in the countries of concern specified in the regulations. The restrictions apply to the export, reexport or transfer of <u>any</u> item, including foreign origin items, by a U.S. person where the person knows the item will be used in the design, development, production, stockpiling, or use of biological weapons in such countries. Support activities requiring a license include financing, freight forwarding, transportation and other comparable assistance by which a person facilitates an export, reexport or transfer. In addition, no U.S. person may perform any contract, service or employment knowing it will assist in biological weapons activities in these countries.

B. Applications for licenses will be considered on a case-by-case basis to determine whether the export would make a material contribution to the design, development, production, stockpiling, or use of biological weapons. When an export is deemed to make such a contribution, the application will be denied.[38]

Analysis of Control as Required by Section 6(f) of The Act

A. The Purpose of the Control

The purpose of these controls is to support multilaterally coordinated efforts to control the proliferation and illegal use of biological weapons. They also provide regulatory authority to control exports from the United States when there is a significant risk that they will be used for that purpose. The controls implement some of the measures directed in Executive Order 12735 of November 16, 1990 and its successor, Executive Order 12938 of November 14, 1994 and the Enhanced Proliferation Control Initiative of December 13, 1990.

Thirty nations cooperate in the Australia Group (AG) to further BW non-proliferation objectives. (See table in Appendix for complete list of members.) While initially organized to address the threat of chemical weapons, the AG later expanded its cooperation into the biological area. Therefore, these controls are consistent with the international standards adopted by the AG. These controls help implement the United States obligation under the BWC not to assist in any way the acquisition of biological agents or toxins covered by the BWC. They also advance the goals of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or other Gases, and of Bacteriological Methods of Warfare under which States Parties

are prohibited from using chemical and biological weapons in warfare. U.S. export controls, along with those of other suppliers, help limit the destabilizing spread of biological weapons.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary has determined that the control is likely to achieve the intended foreign policy purpose in light of other factors including availability from other sources of these biological materials and related equipment and technical data. The United States continues to address the problem of biological weapons proliferation through a variety of international fora, and urges other AG members to pursue export control cooperation with non-members on a bilateral or regional basis.

While the controlled materials are widely available from other countries, the continuation of these controls reaffirms U.S. opposition to the development, proliferation and use of biological weapons and serves to distance the United States from such activities.

2. Compatibility with Foreign Policy Objectives. In extending these controls, the Secretary has determined that the controls are compatible with the foreign policy objectives of the United States. The United States has a strong interest in remaining in the forefront of international efforts to stem the proliferation of biological weapons. The United States has binding obligations not to assist in any way the acquisition of biological weapons under the BWC, and has made multilateral commitments to control exports in connection with the AG. These controls are compatible with the multilateral export controls for biological materials agreed to in the AG. They are also compatible with multilateral efforts to strengthen the BWC to deter non-compliance and to reinforce the global commitment against the proliferation of biological weapons.

3. Reaction of Other Countries. The United States regularly engages in consultation with other countries regarding use of export controls to halt the proliferation of biological weapons. In addition the AG urges all countries to adopt export controls on microorganisms, equipment and technical data related to the production of biological weapons.

4. Economic Impact on U.S. Industry. The Secretary has determined that the potential impact of these export controls on the U.S. economic position is minimal as borne out by our export licensing statistics.

In FY 1996, the Department approved 242 export license applications for biological agents valued at $24.7 million. Two export applications valued over $740 were denied. For the categories of equipment and materials related to production of controlled biological agents, 1 export application was approved totaling $680 thousand dollars. No license application was denied.

These statistics also demonstrate that AG export controls do not undermine the legitimate economic or technological development of any country. Rather they are consistent with the spirit of Article III of the BWC which prohibits assistance to any country's BW program.

5. Enforcement of Control. Enforcing controls on biological weapons materials poses problems similar to the enforcement of chemical controls, but with additional difficulties. Biological materials are microscopic organisms that require technical expertise and specialized facilities to identify and to handle. Because of their size, they can be concealed and transported with ease. Enforcing controls on biological agents and associated equipment, brings enforcement personnel in contact with industries, manufacturers and exporters with whom they have had little prior contact, until recently.

To meet the challenge of effective enforcement of these proliferation controls, Commerce has redirected resources toward preventive enforcement, and conducts an extensive on-going outreach program to educate appropriate industries about export controls. The program is also designed to increase the industry's awareness of suspicious orders for products or equipment that could be used for biological weapons proliferation. A significant number of investigations have been opened into allegations of illegal activity related to these concerns. In cases when unlicensed shipments of biological materials have already taken place, Commerce has found that investigations and prosecutions can be successfully conducted on the basis of routine documentation, as in other export control enforcement cases.

C. Consultation with Industry

Commerce consulted the government/industry members of its Regulations and Procedures Technical Advisory Committee in the development of the March 25, 1996 interim rule amending the regulations to implement the biological changes agreed to by the AG. During FY 1996, BXA reestablished the charter of the Biological Technical Advisory Committee (BIOTAC) and incorporated it into the Materials Advisory Technical Committee (MATAC). BXA took this action because of the need to address issues relating to the Biological Weapons Convention (BWC) and BW agents. This re-formatted industry advisory group is playing an important role in the development and implementation of BXA's BW export control responsibilities as well as in its efforts to develop a legally binding protocol to strengthen the BWC.

D. Consultation with Other Countries

The United States coordinates its controls on biological items with 29 other countries in the AG. On October 14-17, 1996, experts at the AG Implementation/Enforcement Meeting discussed implementation of last year’s agreed biological changes and any other control techniques which could be adopted to the AG’s BW list. A BXA representative presented an overview of the measures that the U.S. has recently used to help address the threats of BW terrorism, i.e., the recently proposed regulation on the domestic transfer of select biological agents.

The U.S. continues to urge key non-AG countries to adopt AG biological controls. We have been working closely with Bulgaria, Russia and Ukraine to set up an export control system, including an enforcement mechanism, that will include AG-listed biological items.

E. Alternative Means

The United States continues to address the problem of the proliferation of biological weapons on a number of fronts. Direct negotiations with countries intent on acquiring biological weapons are not likely to prevent the use of U.S.-origin materials in such activities. Neither are such negotiations likely to affect the behavior of these countries.

Alternative means to curtail the acquisition and development of biological warfare capabilities, such as diplomatic negotiations, do not obviate the need for controls. Some of the following are examples of additional means that have been and will continue to be used in an attempt to curb the use and spread of biological weapons:

U.S. Legislation - The Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 (Title III, Pub. L.102-182) provides for the imposition of sanctions on foreign persons and countries for certain kinds of chemical and biological weapons related activity. To date, no sanctions have been imposed for biological weapons related activities.

Trilateral US/UK/Russian Statement - In September 1992, the US, UK and Russia confirmed their commitment to full compliance with the Biological Weapons Convention and agreed to a number of steps including data exchanges and visits to biological sites, and further consultations to enhance cooperation and confidence.

Biological Weapons Convention - The BWC Special Conference held September 19-30, 1994, produced a mandate to develop a legally binding instrument to strengthen the effectiveness and improve the implementation of the BWC. The BWC Ad Hoc Group continues to work on developing these instruments.

F. Foreign Availability

Past reviews conducted by BXA identified the availability of AG-controlled viruses and bacteria in the non-AG countries of Brazil, Bulgaria, India, Indonesia, Iran, Jordan, Mexico, PRC, Senegal, Singapore, Taiwan, and Thailand and related AG-controlled equipment items available in Brazil, Bulgaria, Hong Kong, India, Israel, Malaysia, Pakistan, PRC, Russia, Saudi Arabia, Singapore, South Africa, Taiwan and Ukraine. (Most of this equipment has application in the food processing and pharmaceutical industries.) Many of the countries listed above are parties to the BWC and Commerce is working with other U.S. agencies as part of ongoing international efforts to strengthen the effectiveness of this convention.

9. Missile Technology [Sections 742.5 and 744(778A.7 and 778A.9)]

Export Control Program Description And Licensing Policy

On April 16, 1987, the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom formed the Missile Technology Control Regime (MTCR) to coordinate their national export controls on certain goods and technologies in order to limit the proliferation of missiles and related technology. Spain joined the MTCR in 1989, with Belgium, the Netherlands, Luxembourg, Denmark, Australia and New Zealand becoming members in 1990. In 1991, Austria, Finland, Norway and Sweden were admitted and Greece, Ireland, Portugal, and Switzerland joined in 1992. In March 1993, Iceland joined the MTCR, and in November the MTCR expanded into Latin America and Eastern Europe for the first time, as Argentina and Hungary were admitted as new members.

In 1995 the MTCR added Brazil, Russia and South Africa as new members, which further expands the regime into Eurasia and Africa, and strengthens the global efforts to prevent missile proliferation. There were no new members added in 1996. However, several other countries, including Romania, Israel, the Czech Republic, and Ukraine have made public pronouncements regarding their unilateral adherence to the current MTCR Guidelines. In addition, China has committed to abide by the original 1987 MTCR Guidelines.

The MTCR is not treaty-based, but rather an understanding among Partners to implement a common set of export guidelines on a commonly agreed list of goods and technologies in accordance with each Partner's national laws and regulations. The MTCR Guidelines form the basis for controlling transfers of items that could contribute to unmanned delivery systems for weapons of mass destruction (WMD). The Guidelines describe general export licensing commitments, review criteria, standard assurances, and an appeal for all countries to unilaterally adhere to them. The original 1987 Guidelines restricted transfers of nuclear-capable missiles and related technology. However, in January 1993, the MTCR Partners extended the Guidelines to cover delivery systems for all types of WMD.

The MTCR Annex is a multilaterally agreed list of controlled equipment and technology needed for the development, production, and operation of missiles. The MTCR Annex is divided into two categories, with technology for the items controlled in the same manner as the hardware or materials:

(1) Category I covers complete missile systems, as well as major subsystems; and

(2) Category II covers munitions and dual use hardware, parts, components, production and test equipment, and materials, as well as Items 19 and 20 (described below).

The Annex defines a Category I missile system as one capable of delivering at least a 500 kilogram payload to a distance of at least 300 kilometers. Category I items carry a strong presumption of denial and are rarely licensed for export. Transfers of production facilities for Category I items are prohibited. Category II items are licensed only after a case-by-case review to insure that they are not intended for use in an MTCR class missile or a WMD delivery system. In 1993, Item 19 was added to Category II in the MTCR Annex to cover complete rocket systems and unmanned air vehicles not covered under Category I and capable of a range of 300

kilometers. Item 20 was added to Category II of the Annex to cover major subsystems for Item 19 missiles.

In 1991, the Enhanced Proliferation Control Initiative (EPCI) was instituted to control goods and technology (not on the MTCR Annex), as well as services, when the exporter "knows" the export will be used in the design, development, production, or stockpiling of missiles or Chemical/Biological Weapons (CBW), or "is informed" by the Commerce Department that there is an unacceptable risk of diversion to a missile or CBW project. A majority of the MTCR Partners have followed the U.S. lead and adopted EPCI-like controls to further combat missile proliferation. This was most evident in July 1995 when the 15 countries in the European Union included so called "catch-all" controls in their dual use export control regulations, and Japan followed with new regulations that went into effect on October 1, 1996.

The licensing requirements and policy for missile technology controls are described in Parts 742.5 and 744 of the Export Administration Regulations (EAR), and summarized as follows:

A. A license is required for the export to all destinations (except Canada) of those dual-use items specifically identified on the Commerce Control List as controlled for missile technology reasons. These items are controlled on a multilateral basis by the MTCR. Munitions-related items are controlled and licensed through the Department of State.

B. A license is required for any destination, including Canada, for any dual use export or reexport subject to the EAR, when the exporter knows that the item is either (1) destined for a missile project listed in the footnote to Country Group D:4 in the EAR, or (2) will be used in the design, development, production, or use of missiles in or by a country listed in Country Group D:4.

C. The Department may inform the exporter that a license is required for any item because there is an unacceptable risk of use in, or diversion to such activities, anywhere in the world.

D. EPCI licensing restrictions also apply to certain forms of "knowing" participation and support by U.S. persons, including foreign branches of U.S. companies, in missile activities in countries of concern specified in the regulations. The restrictions apply to the export, reexport or transfer of <u>any</u> item, including foreign origin items, by a U.S. person where the person knows the item will be used in the design, development, production, or use of missiles in or by such countries. Support activities requiring a license include financing, freight forwarding, transportation and other comparable assistance by which a person facilitates an export, reexport or transfer. In addition, no U.S. person may perform any contract, service or employment knowing it will assist in missile activities in a country of concern.

E. Applications for export licenses will be considered on a case-by-case basis to determine whether the export would make a material contribution to the proliferation of missiles.

Analysis of Control as Required by Section 6(f) of The Act

A. The Purpose of the Control

The purpose of this control is to curtail the availability of goods and technology that could contribute to missile proliferation. Regulating exports of specific types of missile related equipment and technology, in coordination with other suppliers of these materials, helps limit the destabilizing spread of missile systems and related technology around the world. This control complements U.S. and international nuclear, chemical, and biological non-proliferation efforts by blocking development of unmanned delivery systems for weapons of mass destruction.

This control lends clear U.S. support to a collective effort with the other 27 member countries of the MTCR and underscores our resolve to address mounting international concern regarding missile proliferation. A multilateral arrangement to honor other members' denials of licenses and to support such denials through a "no undercut" commitment enhances global efforts to prevent missile proliferation and prevents unfair commercial advantage or disadvantage to members.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. Despite the foreign availability of some controlled items, cooperation between the United States, its MTCR Partners, and other like-minded countries, many of which are major producers of the items under control, has hindered the efforts of proliferators to successfully develop or acquire highly accurate missiles that are militarily effective. The Secretary has determined that the extended controls are likely to achieve the purpose of limiting the spread of missile delivery systems.

2. Compatibility with Foreign Policy Objectives. Halting the spread of missiles and related equipment and technology worldwide is a key U.S. national security goal. This control is consistent with, and contributes to, this important U.S. policy objective. Moreover, U.S. membership in the MTCR and rigorous application of the MTCR Guidelines and Annex complement the existing nuclear, chemical and biological non-proliferation control policies by working actively to curb the spread of missile technology and equipment for use of such weapons.

3. Reaction of Other Countries. The Secretary has determined that the reaction of other countries to these controls will not render the controls ineffective or be counterproductive to U.S. policy. The United States is confident that other members of and adherents to the MTCR, many of whom are also the leading Western suppliers of missile technology, will continue to support and strengthen this control regime. The MTCR Partners share information regarding denials of MTCR Annex items and are committed to consult before approving an essentially identical export denied to a specific end user by another Partner ("no undercut policy"). The MTCR Partners also share information about activities of potential proliferation concern and have cooperated to interdict certain transactions. In addition, both the number of MTCR members and other countries willing to cooperate with the Regime have increased over the past few years. At the

1996 Edinburgh MTCR Plenary, the Partners also reaffirmed their commitment to combating the missile proliferation threat from non-member countries. Finally, the U.S. and its MTCR Partners have actively engaged in an outreach program to encourage additional countries to adhere to the Guidelines and implement effective export controls on MTCR items.

4. Economic Impact on U.S. Industry. In extending these controls the Secretary has determined that the economic impact does not outweigh the foreign policy benefit of the control. There were no major changes or revisions to the MTCR Annex or U.S. missile technology controls on dual use items in 1995 or 1996. The focus of the control is limited to those goods and technologies that would contribute to missile development. Therefore, the MTCR affects only a confined list of commodities and has limited economic impact on the export of the majority of dual use commodities. In September 1994, Commerce published revisions to the Commerce Control List to reflect changes in the MTCR Annex.

Multilateral support for the MTCR Annex by other major suppliers of controlled technologies and products helps restrain the flow of missile-related goods and technologies to activities and projects of proliferation concern. Multilateral cooperation from other MTCR members to honor members' export denials through a "no undercut policy" helps ensure that no member country obtains an unfair commercial advantage in the pursuit for foreign sales.

In FY 1996 a total of 1,466 licenses were approved to all destinations controlled for missile technology, at a dollar value of $354,855,430. A total of 63 licenses were denied, at a dollar value of $8,011,893. A total of 154 applications were returned without action, with a dollar value of $231,901,610.

5. Enforcement of Control. To meet the challenge of effective enforcement of these controls, Commerce has redirected resources toward preventive enforcement, and conducts an extensive on-going outreach program to educate appropriate companies about export controls and to increase their awareness of "red flags" that may indicate potentially risky transactions. This program is an important component of Commerce's efforts to prevent companies from illegally exporting dual-use products or equipment that could be used to make missiles. A significant number of investigations have been opened into allegations of illegal activity involving MTCR controls.

C. Consultation with Industry

Commerce received no comments on missile technology controls from the request for public comments. However, changes or issues involving the MTCR Annex are discussed primarily in the Transportation Technical Advisory Committee (TransTAC). The material contribution of items, such as oscilloscopes, controlled for other reasons were reviewed to determine if they were critical for the use or development of missiles. The results of these discussions are now under review. There are also regular consultations with other relevant TACs on missile-related issues, such as the EPCI clarification project and other current MTCR technical issues. The MTCR Annex can be amended by a consensus decision of all MTCR Partners. Commerce participates in interagency working groups that review proposed changes to the Annex.

D. Consultation with Other Countries

Ongoing consultations with the other members of the MTCR are a fundamental element of U.S. missile technology controls. The membership of the MTCR continues prudently to expand, as other significant potential suppliers recognize the importance of this cooperative mechanism to restrict the proliferation of missile systems. Consultations with non-MTCR countries are also an essential element of U.S. missile nonproliferation policy. As noted above, the USG shares information about activities of concern with other countries and seeks to prevent or stop certain transactions. The United States also shares denial information with the MTCR Partners. Although the export controls are coordinated multilaterally, national discretion remains the ultimate decision-making authority.

E. Alternative Means

To participate fully in the MTCR, the United States must be able to prevent exports of equipment and technologies relevant to the development of missiles. The missile technology control provisions of the National Defense Authorization Act of FY 1991 provides for the imposition of export, import, and procurement sanctions on foreign entities engaged in certain kinds of activities relating to the transfer of MTCR Annex items to non-MTCR adherent countries. In the past, sanctions have been imposed on entities in China, India, North Korea, Pakistan, and Russia. A goal of the missile sanctions is to encourage the governments of the sanctioned entities to adopt responsible nonproliferation behavior.

Diplomatic efforts by the United States and the MTCR Partners to encourage additional countries, including other potential suppliers of missile technology, to abide by the MTCR Guidelines are on-going. These efforts are aimed at encouraging non-MTCR members to adhere unilaterally to the MTCR Guidelines and implement effective export controls on missile items.

F. Foreign Availability

Foreign availability of missile systems and launch vehicles prior to the imposition of MTCR-based controls was examined. Foreign capabilities outside the MTCR included, but were not limited to China (PRC), Egypt, India, Israel, Taiwan, and Ukraine. Some of these countries, such as Israel and Ukraine, abide by the MTCR Guidelines and apply MTCR-type controls. Prior to the 1991 streamlining of the COCOM national security list, most of the MTCR Annex items were also included on the COCOM lists and detailed foreign availability analyses were performed. Even though COCOM ceased to exist in April 1994, the COCOM controls remain in place until a new strategic trade regime can be established. A foreign availability study was conducted on batch mixers and a solid fuel additive in 1989. In 1992, foreign availability reviews were conducted on vibration test equipment and accelerometers. The United States has approached and will continue to approach other nations that produce the MTCR Annex-controlled items to urge vigilance in reviewing requests to export these items and to rigorously apply the MTCR Guidelines to help prevent missile proliferation worldwide.

10. High Performance Computers [Section 742.12(776A.10)]

Export Control Program Description And Licensing Policy

The revision of export controls on computers is a high priority for the Administration. Major revisions occurred in 1993, but the Administration recognized that computer technology would continue to change rapidly and computer controls would need to be reviewed every 18 to 24 months. Accordingly, the Administration continues to review export controls on computers taking into account 1) the rapid advance of computing technology since 1993, 2) U.S. security and nonproliferation interests, and 3) the need for a policy that will remain effective over an 18 to 24 month period.

On October 6, 1995, the President again announced substantial changes in export controls on computers, including controls on computers formerly referred to as "supercomputers." These proposed changes were to increase the performance levels of computers which could be exported without prior government approval. However, recognizing the strategic and proliferation applications for "High Performance Computers," foreign policy controls were extended for machines, including software and technology, at varying levels, based on country of destination, end use and end user, as described below. These foreign policy controls supplement national security and anti-terrorism controls that apply to computers.

The extension of foreign policy controls on "high performance computers" does not mean that prior government review for foreign policy reasons is required for all destinations. For many destinations, no prior government approval to export is necessary. Four Computer Country Groups have been established for the purpose of these controls. The specific performance level at which prior government review is required varies based on country of destination and the end user and end use of the computers.

The President's decision called for a sliding scale of controls, whereby the scope of control is commensurate to the performance of the computer and the level of risk associated with

destination and end-use. The revised level of controls, which eliminates the use of the term "supercomputer," using the term "high performance computers" instead, is as follows:

Computer Country Tier 1 -- The first level of the sliding scale allows exports to most industrialized countries to proceed without prior government review (license exception). Exporters are required to maintain records of shipments and must forward certain information to the government as requested for shipments of computers at 2000 CTPS (Composite Theoretical Performance) and above. Reexport and retransfer restrictions also apply.
(See Addendum to this chapter for listing of specific countries by Country Tiers.)

Computer Country Tier 2 -- The second level applies to countries with mixed (but generally low risk) proliferation and export control records. There is no prior government review up to 10,000 CTPS, but exporters are required to maintain records for computers at 2,000 CTPS and above and report this information to the United States Government, as requested. Reexport and retransfer restriction apply. Exports above 10,000 million CTPS to these countries would require prior government review (an export license). Above 20,000 CTPS, additional safeguards procedures are required.

Computer Country Tier 3 -- The third level applies to countries posing proliferation, diversion or other security risks. Licenses would begin at 2,000 CTPS for military and proliferation end-users/uses, and 7,000 CTPS for all other end-users/uses, with a requirement for full safeguards for machines of 10,000 CTPS and above, depending on the end-user. No prior government review would be required for exports to civil end-users/uses between 2,000 - 7,000 CTPS, but exporters would be required to maintain records and report this information to the USG, as requested. Reexport and retransfer restrictions apply.

Computer Country Tier 4 -- The fourth level applies to terrorist countries (Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria). The President's decision was to continue to deny computer technology to terrorist countries. A license is required to export or reexport to any end-user in Sudan or Syria computers with a CTP => 6 MTOPS. Licenses are required for export or reexport of any computer, regardless of CTP to Iran, Iraq, Libya, North Korea or Cuba. (OFAC has responsibility for transactions with Iran and Iraq, and exports to Libya.) Applications to export or reexport computers to terrorist countries will generally be denied.

A regulation implementing the above-described, revised level of controls was published in the Federal Register on January 25, 1996.

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Part Two: Analysis of Control as Required by Section 6(f) of The Act

A. The Purpose of the Control

The purpose of the computer controls is to prevent the transfer or diversion of computers to unauthorized end-uses or end-users. The controls also demonstrate the degree of U.S. concern

over illegitimate access to such machines and assist the United States in its efforts to obtain multilateral cooperation in the regime.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. Because the United States is one of the few producers of high performance computers in the world, there is high probability that the controls will be effective. The United States is also making every effort to convince other producers to adopt similar controls.

2. Compatibility with Foreign Policy Objectives. It is the foreign policy of the United States to restrict the flow of goods and technology that would compromise U.S. security and foreign policy interests. Extensive U.S. leadership and participation in various multilateral control groups demonstrate the U.S. commitment in this regard. Since high performance computer export controls focus on security and foreign policy concerns, these controls substantially support U.S. foreign policy objectives.

3. Reaction of Other Countries. The Secretary has determined that the reaction of other countries to the extension of controls is not likely to render the controls ineffective in achieving the intended foreign policy objectives, or to be counterproductive to U.S. foreign policy interests. Countries that want high performance computers for legitimate civilian purposes should have no objection to the control because export licenses are reviewed on a case-by-case basis and are denied only if the export would adversely affect U.S. security or foreign policy objectives.

4. Economic Impact on U.S. Industry. In FY 1996 there were 169 licenses approved for high performance computers, valued at $188.3 million. Of these, 165 licenses, valued at $179.9 million, were approved through January 25, 1996; while the remaining four licenses, valued at $9.4 million, were approved between the date the new computer deregulation was published, and the end of the fiscal year. No export license applications for the transfer of high performance computers were denied in FY 1996. The effect of the deregulation on high performance computers can be seen when compared to FY 1995 when 306 licenses, valued at $525.8 million, were approved.

The administrative costs incurred by computer producers to comply with U.S. export regulations had been a major burden in the export licensing process. The October 6, 1995 decision, and subsequent publication in January 1996, resulted in a substantially reduced compliance burden for U.S. industry.

5. Enforcement of Control. The Secretary has determined that the United States has the ability to enforce the control effectively. Significant problems of product identification are not expected. Because this control covers only one class of items, training of enforcement personnel to familiarize them with the equipment can be done without undue difficulty. In addition, the actual computer hardware is only one component of the total system. Specialized application software, maintenance, and spare parts often require continued contact with the exporter.

Therefore, with appropriate safeguards, computers could not be completely, readily, and reliably diverted to unauthorized uses, moved, or adequately maintained for extended periods of time without the knowledge and support of the exporter or manufacturer.

C. Consultation with Industry

One commentor claimed that liberalization of computer export controls have failed to keep up with the speed of computer technology development and its rapid dissemination throughout the world. Industry has proposed to index controls to the pace of technology; in other words, once a level of computer or computer products become foreignly available, the decontrol would "kick in" automatically.

Another computer manufacturer said that it is necessary for the Administration to again review the thresholds of export controls on computers because the next generation workstation servers and workstations will far exceed the current control levels.

D. Consultation with Other Countries

The United States has actively consulted our allies and friends to ensure that they understand the basis for the new controls. The United States is working particularly closely with Japan and others in the Wassenaar Arrangement (the successor to COCOM), believing that our controls are consistent with the basic foundations and principles already agreed in these negotiations. Exporters will be required to report certain information to the government consistent with our multilateral commitments on information sharing in the new regime.

E. Alternative Means

Alternatives to controls would not be the most effective means of achieving the intended strategic and non-proliferation objectives. The United States will continue to use diplomatic efforts to discourage other countries from engaging in activities which the controls address, and to consult with other supplier countries about adhering to multilateral export controls. However, these efforts can only supplement, not replace, the effectiveness of actual export controls.

F. Foreign Availability

The new computer export controls take a realistic account of the likely effectiveness of controls in the face of the rapid advance and diffusion of computer technology worldwide. The key to effective export controls is setting control levels above foreign availability -- that is, the level of computer capability that end users of security and proliferation risk can obtain because of widespread availability or by diversion from normal commerce. When the United States had last adjusted the controls in 1993, it was evident that computer technology would continue to change rapidly -- about every 18 to 24 months. Thus, the Administration announced then that it would be reviewing computer controls again in that time frame.

The government review determined that widespread worldwide availability of computers up to 7,000 CTPS would likely become uncontrollable over the next two years.

ADDENDUM

COMPUTER TIER	COUNTRIES
1	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Holy See, Iceland, Ireland, Italy, Japan, Liechtenstein, Luxembourg, Mexico, Monaco, Netherlands, New Zealand, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, Turkey, and the United Kingdom, and all territories thereof (except Hong Kong, which is in Tier 2).
2	Country Group T (except Mexico) in the Export Administration Regulations, Antigua & Barbuda, Bangladesh, Benin, Bhutan, Botswana, Brunei, Burkina Faso, Burma (Myanmar), Burundi, Cameroon, Cape Verde, Central Africa, Chad, Congo, Cote d'Ivoire, Cyprus, Czech Republic, Dominica, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia (The), Ghana, Grenada, Guinea, Guinea-Bissau, Hong Kong, Hungary, Indonesia, Kenya, Kiribati, Korea (Republic of), Lesotho, Liberia, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritius, Micronesia (Federated States of), Mozambique, Namibia, Nauru, Nepal, Niger, Nigeria, Palau, Papua New Guinea, Philippines, Poland, Rwanda, St. Kitts & Nevis, St. Lucia, St. Vincent and Grenadines, Sao Tome & Principe, Senegal, Seychelles, Sierra Leone, Singapore, Slovak Republic, Slovenia, Solomon Islands, Somalia, South Africa, Sri Lanka, Swaziland, Taiwan, Tanzania, Togo, Tonga, Thailand, Tuvalu, Uganda, Western Sahara, Western Samoa, Zaire, Zambia, and Zimbabwe.
3	Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Azerbaijan, Bahrain, Belarus, Bosnia & Herzegovina, Bulgaria, Cambodia, China (People's Republic of), Comoros, Croatia, Djibouti, Egypt, Estonia, Georgia, India, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lithuania, Macedonia (The Former Yugoslavia Republic of), Mauritania, Moldova, Mongolia, Morocco, Oman, Pakistan, Qatar, Romania, Russia, Saudi Arabia, Serbia and Montenegro, Tajikistan, Tunisia, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Vanuatu, Vietnam, and Yemen.
4	Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

11. Encryption (Section 742.15)

Export Control Program Description and Licensing Policy

On October 1, 1996, the Vice President announced a plan to make it easier for Americans to use stronger encryption products to protect their privacy, intellectual property and other valuable information. The plan relies on market forces to develop a worldwwide key management infrastructure with the use of key recovery and key escrow encryption items to promote electronic commerce and secure communications while protecting national security and public safety.

On November 15, 1996, the President issued a Memorandum and Executive Order 13026 (15 November 1996, 61 FR 58767) directing that all encryption items controlled on the U.S. Munitions List (USML), except those specifically designed, developed, configured, adapted, or modified for military applications, be transferred to the Commerce Control List (CCL). The Memorandum also set forth certain additional provisions with respect to controls on such encryption items to be imposed by the Department of Commerce. The Executive Order provides for appropriate controls on the export and foreign dissemination of encryption items controlled on the USML that are placed on the CCL.

Non-recoverable encryption items up to 56-bit key length Data Encryption Standard (DES) or equivalent strength will be permitted for export and reexport after a one-time review, if an exporter makes satisfactory commitments to build and market products that support recoverable encryption items and to support an international key management infrastructure. This policy will apply to hardware and software. The relaxation of export and reexport controls on non-recoverable encryption items up to 56-bit key length DES or equivalent strength will last until January 1, 1999.

On December 13, 1996 Commerce published a rule in the Federal Register accepting jurisdiction for key recoverable encryption items. Full implementation of the Vice President's October 1 announcement on encryption export controls came on December 30, 1996 with publication of the full regulation. This rule imposed national security and foreign policy controls on certain encryption items. These items do not include those that are specifically designed, developed, configured, adapted or modified for military applications (including command, control and intelligence applications). Such items remain on the USML, and continue to be controlled by the Department of State, Office of Defense Trade Controls. The controls imposed by the rule apply to encryption software, including recoverable encryption "software" transferred from the USML to the CCL pursuant to E.O. 13026. With this rule the Secretary of Commerce imposed foreign policy controls on encryption products to supplement the national security controls already in place. In the CCL the acronym "EI" (Encryption Items) designates foreign policy controls on these items.

The President's executive order directs the Secretary of Commerce to take actions to control the export of assistance to foreign persons in the same manner and to the same extent as the export of such assistance is controlled under the Arms Export Control Act. Therefore, the rule prohibits U.S. persons, without a license from Commerce, from knowingly providing assistance to foreign persons, including providing training, to manufacture or to export encryption items transferred from the USML to the CCL. This provision will not apply to any activity involving such encryption items that have been licensed or otherwise authorized by Commerce.

A. In general, the United States requires a license for all destinations, except Canada, for exports and reexports of commercial encryption items. However, certain exceptions to the licensing requirements may apply.

B. Export license applications for commercial encryption items are reviewed on a case-by-case basis, to determine whether the export or reexport is consistent with U.S. national security and foreign policy interests.

C. Exporters of 56-bit DES or equivalent encryption products are required to make commitments to develop and market products that support key recovery. The Administration believes that the worldwide use of key recovery encryption products will promote electronic commerce and secure communications, while protecting national security and public safety.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Control

The purpose of the control is to protect U.S. national security and foreign policy interests, including the safety of U.S. citizens. Policies concerning the export control of cryptographic products are based on the fact that the proliferation of such products will make it more difficult for the United States Government to obtain access to information vital to national security interests. Cryptographic products and software have military and intelligence applications. As demonstrated throughout history, encryption has been used to conceal foreign military communications, on the battlefield, aboard ships and submarines, or in other military settings. Encryption is also used to conceal other foreign communications that have foreign policy and national security significance for the United States. For example, encryption can be used to conceal communications or data of terrorists, drug smugglers, or others intent on taking hostile action against U.S. facilities, personnel, or security interests.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary of Commerce has determined that the control is likely to achieve the intended purpose of denying the export of commercial encryption items, including products with key recovery features, if its export would be contrary to U.S. national security or foreign policy interests.

2. Compatibility with Foreign Policy Objectives. The Secretary has also determined that the controls are compatible with the foreign policy objectives of the United States. The control is consistent with U.S. foreign policy goals to promote peace and stability and to prevent U.S. exports that might contribute to destabilizing military capabilities and assisting international terrorist or criminal activities against the United States. The controls will also contribute to public safety by promoting the protection of U.S. citizens overseas.

3. Reaction of Other Countries. The Secretary has determined that the reaction of other countries to this control is not likely to render the control ineffective in achieving its intended foreign policy purpose or to be counterproductive to U.S. foreign policy interests. Other allied countries recognize the need to control exports of encryption products for national security and law

enforcement reasons. These countries also recognize the desirability of restricting goods that could compromise shared security and foreign policy interests.

4. Economic Impact on U.S. Industry. The Secretary has determined that the transfer of commercial encryption items, including products with key recovery features, from the USML to the CCL will benefit industry positively and make U.S. manufacturers more competitive in the world market. Removal of these products from the USML may actually improve their marketability to foreign, civil end-users who prefer not to trade in items the United States considers to be munitions. Moreover, since key recoverable encryption products pose less security and law enforcement risks, their export will be treated more liberally than export of encryption products with non-recoverable keys. This will allow U.S. manufacturers and exporters to capture a larger share of growing world demand for key recovery-based products.

5. Enforcement of Control. The Secretary has determined that the United States has the ability to enforce these controls effectively. The United States expects no unusual problems in enforcing the controls. Under the State Department's authority, the items covered by this action have been under strict control. Manufacturers and dealers are familiar with U.S. controls on this product and technology. The strategic importance of these items is clear. Finally, since these items are also under multilateral control, we can expect cooperation from foreign enforcement agencies in preventing violations and punishing violators.

C. Consultation with Industry

The U.S. Government consulted with various elements within industry on the proposed change in controls and on the desirability of development of key recoverable encryption products for both Government and industry. In preparation for the USML rationalization exercise, the State Department also published a number of Federal Register notices dealing with this and other changes to the USML. Industry comments overwhelmingly favored inclusion of commercial encryption items, including products with key recovery features, on the CCL versus the USML.

D. Consultation with Other Countries

The United States has taken the lead in international efforts to stem the proliferation of sensitive items, urging other supplier nations to adopt and apply export controls comparable to those of the United States. The major industrial partners of the United States maintain export controls on this equipment and technology. Pursuant to their agreement to establish a new regime for the control of conventional arms and sensitive dual-use technologies, the 33 participants in the Wassenaar Arrangement have agreed to control these items on a global basis and to coordinate export policies for such items.

In addition, the President appointed Ambassador David L. Aaron as Special Envoy for Cryptography, with the responsibility to promote the growth of international electronic commerce and robust, secure global communications in a manner that protects the public safety and national security Ambassador Aaron will carry out his responsibilities as Special Envoy while retaining his

position as the United States Permanent Representative to the Organization for Economic Cooperation and Development (OECD). As Special Envoy, Ambassador Aaron will promote international cooperation, coordinate U.S. contacts with foreign governments on encryption matters and provide a focal point for identifying and resolving bilateral and multilateral encryption issues.

The United States and other members of the OECD have discussed the desirability of an international standard using encryption with key recovery features and have completed a draft standard.

E. Alternative Means

Alternatives to export controls at this time would not be the most effective means of achieving the intended national security and foreign policy objectives. The United States has undertaken a wide range of diplomatic means, both bilateral and multilateral, to encourage the proper restrictions over these items. However, these efforts can only supplement, not replace, the effectiveness of actual export controls.

F. Foreign Availability

Although other countries produce software and hardware encryption products, the United States is the world's leader. The U.S. is also leading the world in development of the emerging technology of encryption with key recovery features. This fact alone would make a unilateral control effective; however, this is not a unilateral control because most producers of encryption are members of the Wassenaar Arrangement and also control exports of encryption.

It should be noted that the Department of Commerce and the National Security Agency (NSA) prepared a joint study of the international market for computer software with encryption. The study found that the U.S. software industry still dominates world markets for encryption. In those markets not offering strong encryption locally, U.S. software encryption remains the dominant choice. However, the existence of foreign products with labels indicating DES or other strong algorithms, even if they are less secure than claimed, can nonetheless have a negative effect on U.S. competitiveness. The study also notes that the existence of strong U.S. export controls on encryption may have discouraged U.S. software producers from enhancing the security features of general purpose software products to meet the anticipated growth in demand by foreign markets.

The study found that all countries that are major producers of commercial encryption products control exports of these products to some extent. A few countries control imports and domestic use of encryption, as well.

In regard to foreign availability as it relates to encryption items transferred from the USML to the CCL, the President's Executive Order of November 15, 1996 stated the following:

> I have determined that the export of encryption products [transferred to the Commerce Control List] could harm national security and foreign policy interests even where comparable products are or appear to be available from sources outside the United States, and that facts and questions concerning the foreign availability of such encryption products cannot be made subject to public disclosure or judicial review without revealing or implicating classified information that could harm United States national security and foreign policy interests. Accordingly, sections 4(c) and 6(h)(2)-(4) of the Export Administration Act of 1979, 50 U.S.C. App. 2403(c) and 2405(h)(2)-(4), as amended and as continued in effect by Executive Order 12924 of August 19, 1994, and by notices of August 15, 1995, and August 14, 1996, all other analogous provisions of the EAA relating to foreign availability, and the regulations in the EAR relating to such EAA provisions, shall not be applicable with respect to export controls on such encryption products. Notwithstanding this, the Secretary of Commerce may, in his discretion, consider the foreign availability of comparable encryption products in determining whether to issue a license in a particular case or to remove controls on particular products, but is not required to issue licenses in particular cases or to remove controls on particular products based on such consideration.

12. Commercial Communications Satellites and Hot Section Technology [Section 742.14(776A.2 & 776A.20)]

Export Control Program Description and Licensing Policy

On October 21, 1996 Commerce published a rule in the Federal Register accepting jurisdiction on certain commercial communications satellites and certain hot section technology for the development and production of commercial aircraft engines transferred from the U.S. Munitions List to the Commerce Control List (CCL). The Secretary of Commerce imposed new foreign policy controls on these items with the concurrence of the Secretary of State, in the belief that these controls are necessary to further significantly the foreign policy of the United States. [In the CCL the acronym "SI" (Significant Items) designates foreign policy controls on these items.] These commodities are also controlled by the Wassenaar Arrangement whose members include most of the other producers of these commodities. Commerce controls these on the CCL under Export Control Classification Numbers (ECCNs) 9A004(9A04)and 9E003(9E03.a.1 through a.12).

A. The United States requires a license for all destinations, except Canada, for exports and reexports of the above listed items. These items will be controlled for national security and foreign policy reasons.

B. The United States reviews all license applications for the above items, on a case-by-case basis, to determine whether the export or reexport is consistent with U.S. national security and foreign policy interests.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Control

The purpose of the control is to protect U.S. national security and foreign policy interests and to demonstrate U.S. resolve to promote peace and stability. The United States is maintaining such controls because of potential applications for the equipment in a manner contrary to U.S. security or foreign policy interests.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary of Commerce has determined that the control is likely to achieve the intended purpose of denying the export of commercial communication satellites and hot section technology if its export would be contrary to U.S. national security or foreign policy interests.

2. Compatibility with Foreign Policy Objectives. The Secretary has also determined that the controls are compatible with the foreign policy objectives of the United States. The control is consistent with U.S. foreign policy goals to promote peace and stability and to prevent U.S. exports that might contribute to inappropriate military capabilities abroad.

3. Reaction of Other Countries. The Secretary has determined that the reaction of other countries to this control is not likely to render the control ineffective in achieving its intended foreign policy purpose or to be counterproductive to U.S. foreign policy interests. Other allied countries currently control commercial communications satellites and hot section technology for commercial jet engines. These countries also recognize the desirability of restricting goods that could compromise shared security and foreign policy interests.

4. Economic Impact on U.S. Industry. The Secretary has determined that the transfer of commercial communication satellites and commercial hot section technology from the USML to the CCL will benefit industry positively and make U.S. manufacturers more competitive in the world market. Removal of these products from the USML may improve their marketability to foreign, civil end-users who prefer not to trade in items the United States considers to be munitions.

5. Enforcement of Control. The Secretary has determined that the United States has the ability to enforce these controls effectively. The United States expects no unusual problems in enforcing the controls. Under the State Department's authority, the items covered by this action have been under strict control. Manufacturers and dealers are familiar with U.S. controls on this product and technology. The strategic importance of these items is clear. Finally, since these items are

also under multilateral control, we can expect cooperation from foreign enforcement agencies in preventing violations and punishing violators.

C. Consultation with Industry

Commerce consulted with various elements within industry on the proposed change in controls. Industry comments in large measure favored transfer of the items to Commerce.

D. Consultation with Other Countries

The United States has taken the lead in international efforts to stem the proliferation of sensitive items, urging other supplier nations to adopt and apply export controls comparable to those of the United States. The major industrial partners of the United States maintain export controls on this equipment and technology. Pursuant to their agreement to establish a new regime for the control of conventional arms and sensitive dual-use technologies, the 33 participants in the Wassenaar Arrangement have agreed to control these items on a global basis and to coordinate export policies for such items.

E. Alternative Means

The United States has undertaken a wide range of diplomatic means, both bilateral and multilateral, to encourage the proper control over these items. The United States has specifically encouraged efforts to limit the flow of satellites and hot section technology to areas contrary to U.S. security and foreign policy concerns.

F. Foreign Availability

Although other countries produce commercial communications satellites and hot section technology, the United States is the world's leader. This fact alone would make a unilateral control effective; however, this is not a unilateral control because most producers of commercial communications satellites and hot section technology are members of the Wassenaar Arrangement and are controlling these items.

In addition, it is important to note that while the Act contains provisions on foreign availability, items controlled for foreign policy reasons are excluded from mandatory foreign availability decontrol or export licensing provisions of the Act.

13. Nuclear Non-Proliferation [Section 744.2)(778A)]

Export Control Program Description and Licensing Policy

The United States maintains export controls on certain items for the purpose of furthering its nuclear non-proliferation policy. Although under different legislative authority (the Nuclear Non-Proliferation Act of 1978) and thus not foreign policy-based controls in the same sense as

others noted in this report, nuclear controls maintained by the Commerce Department are included here because they have many foreign policy characteristics and are normally grouped with the other non-proliferation controls contained in this report. The format of this chapter does not follow that of previous chapters but instead addresses the requirements of the legal authority for these controls.

A. A validated license is required for exports of the following commodities and related technical data:

1. Commodities or related technical data that could be of significance for nuclear explosive purposes (i.e., the Nuclear Referral List included in the CCL); and

2. Any commodity or related technical data that the exporter knows, or has reason to know, will be used directly or indirectly in any of the following activities:

a. nuclear explosive activities including designing, developing, manufacturing, or testing nuclear weapons or nuclear explosive devices; or

b. unsafeguarded nuclear activities including designing, developing, or manufacturing any nuclear reactor, critical facility, facility for the fabrication of nuclear fuel, facility for the conversion of nuclear material from one chemical form to another, or separate storage installation, where there is no obligation to accept International Atomic Energy Agency Safeguards at the facility or installation, when it contains any source of special fissionable material, or where any such obligation is not met; or

c. safeguarded and unsafeguarded nuclear activities including: designing, constructing, fabricating, or operating the following facilities, or components for such facilities: (i) facilities for the chemical processing of irradiated special nuclear or source materials; (ii) facilities for the production of heavy water; (iii) facilities for the separation of isotopes of source and special nuclear material; or (iv) facilities for the fabrication of nuclear reactor fuel containing plutonium.

3. The Commerce Department may inform the exporter that a license is required for any item because there is an unacceptable risk of use in or diversion to such activities, anywhere in the world.

B. Factors considered in reviewing applications for licenses include:

the stated end-use of the item;
the significance for nuclear purposes of the particular component and its availability elsewhere;
the types of nuclear non-proliferation assurances or guarantees given in a particular case; and
the non-proliferation credentials of the recipient country.

Analysis of Control as Required by Law[39]

Section 17(d) of the Act and Section 309(c) of the Nuclear Non-Proliferation Act of 1978 are interpreted to provide that:

A. Nuclear non-proliferation controls do not expire annually and determinations to extend them are thus not required; and

B. The criteria and other factors set forth in Sections 6(b) through 6(f) of the Act are not applicable to these controls.

The Congress is, therefore, notified that these controls continue in effect. These controls further significantly the nuclear non-proliferation policy of the United States and its international obligations. This policy of the United States has made it more difficult for nations to acquire sensitive nuclear technology or equipment.

The United States maintains on-going discussions with other countries to coordinate export controls for nuclear non-proliferation purposes and has received significant assistance from other countries in reducing available foreign sources. The multilateral Nuclear Suppliers Group (NSG), composed of 34 members (Brazil and Ukraine became members in 1996), set forth guidelines on the export control of a list of nuclear-related dual-use items, effective on January 1, 1993.

The Departments of Commerce and Energy, in consultation with the Departments of State and Defense, the Arms Control and Disarmament Agency and the Nuclear Regulatory Commission, have revised the list of dual-use items controlled for nuclear non-proliferation reasons and published this revision in March 1994. This list, commonly called the Nuclear Referral List, conforms with our international obligations under the NSG. The list was further revised by the member countries of the NSG; these revisions were published in January 1996, but the list is too lengthy to include in this report.

ENDNOTES

1. Pursuant to Section 6(b)(2), the Department is required to consider the criteria set forth in Section 6(b)(1) when extending controls in effect prior to July 12, 1985. In addition, the report must include the elements set forth in Sections: 6(f)(2)(A) (purpose of the controls), 6(f)(2)(C) (consultation with industry and other countries), 6(f)(2)(D) (alternative means attempted), and 6(f)(2)(E) (foreign availability).

2. Pursuant to Section 6(b)(1), the Department is required to make determinations regarding the criteria set forth therein when extending controls in effect after July 12, 1985. The report shall also contain the additional information required in Section 6(f)(2)(A), (C)-(E) (as set forth in endnote 1, supra.)

3. There may be limitations in assessing the economic impact of certain controls because of the unavailability of data or because of the prevalence of other factors, i.e., currency

values, foreign economic activity, or foreign political regimes, which may restrict imports of United States products more stringently than the United States restricts exports.

4. When controls are implemented without the imposition of corresponding restrictions by other countries, it is difficult to guard against reexports from third countries to the target country, to secure third country cooperation in enforcement efforts, and to detect violations abroad and initiate proper enforcement action. The relative ease or difficulty of identifying the movement of controlled goods or technical data is also a factor. Controls on items that are small, inexpensive, easy to transport or conceal, or that have many producers and end-users, are harder to enforce.

5. Certain goods and technical data described in this report, whether or not subject to foreign policy controls, may also require a license for certain destinations for national security purposes in accordance with Section 5 of the Act.

6. Citations following each of the foreign policy control programs refer to those sections of the Export Administration Regulations (EAR), 15 CFR Parts 730-772(730A-799A), in which the control program is described.

7. Provisions pertaining to foreign availability are not applicable to export controls in effect before July 12, 1985 under sections 6(i) (International Obligations), 6(j) (Countries Supporting International Terrorism), and 6(n) (Crime Control Instruments). Export Administration Amendments Act of 1985, Public Law No. 99-64, section 108(g)(2), 99 Stat. 120, 134-35. Moreover, sections 6(i), 6(j), and 6(n) require that controls be implemented under certain conditions without consideration of foreign availability.

8. A validated license is required under Section 6(a) for all computers going to Sudan or Syria with performance of 6 CTPS or above.

9. See footnote 2 in Section 1 of this report.

10. MEED Middle East Business Weekly, Vol. 39, No. 19, page 25 (May 12, 1995).

11. The New York Times, Section D, page 5. Column 1, article by Barnaby J. Feder entitled "An Embargo Is Seen to Affect Oil Services and Farmers Most" (May 2, 1995).

12. Sizing Up U.S. Export Disincentives by J. David Richardson, Institute for International Economics, page 130 (1993).

13. Sisler, Peter F., "IMF Board Cities 'Progress' in Sudan," Washington News, June 20, 1995.

14. U.S. Department of State, "Background Notes - Sudan," June 20, 1995.

15. See footnote 3 in Chapter 2 of this report.

16. Commercial shipments to North Korea of goods intended to meet basic human needs are also permitted under a license on a case-by-case basis.

17. Cuba: Handbook of Trade Statistics, 1995, Central Intelligence Agency.

18. License approvals are authorizations to export and do not necessarily correspond directly to the volume of actual shipments within 1995.

19. "Foreign Investors Finding Cuba More Comfortable-With U.S. Away," The Washington Post, September 12, 1995.

20. Cuba: Handbook of Trade Statistics, 1995, Central Intelligence Agency.

21. Hohn, Y.T. Kuark, "A Comparative Study of Foreign Trade in North and South Korea," University of Denver, March 1992, p. 21.

22. Noland, Marcus, "The North Korean Economy," Institute for International Economics, July 1995, p. 26.

23. Flake, L. Gordon, "International Economic Linkages of North Korea," Korea Economic Institute of America, May 26, 1995, p. 2.

24. See endnote 3 in Chapter 2.

25. Though the Libyan Sanctions Regulations encompass the restrictions in the EAR on exports from generally the United States to Libya, all the Department of Commerce controls are being extended. These controls can be reevaluated in the event the IEEPA authorities are revoked.

26. "Who's Punishing Whom?; Trade Bans Are boomerangs, U.S. Companies Say," The New York Times, September 11, 1996.

27. "House Passes Measure Against Foreign Firms Investing in Iranian, Libyan Oil," Washington Post, July 24, 1996.

28. See endnote 3 in Chapter 2.

29. Exports to Australia Group member countries are exempt from these foreign policy controls. Until recently, Turkey, as a NATO member country, was exempt from these controls. Turkey, however, is not a member of the AG and has not adopted AG-comparable export controls. Therefore, the United States imposed controls on chemical

precursor exports to Turkey on October 19, 1994.

30. The Middle East region is understood to include Bahrain, Egypt, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen.

31. Southwest Asia is understood to include Afghanistan, India, Iran, and Pakistan.

32. This area includes Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

33. Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria have been designated as countries supporting international terrorism. See endnote 1 in Chapter 4 of this report.

34. The Commerce Department first imposed foreign policy controls on microorganisms useful in weapons development on February 23, 1989. On July 5, 1992, the Department revised these export controls to conform with the list of microorganisms agreed to by the countries participating in the Australia Group.

35. See endnote 34 in Section 8 of this report.

36. See endnote 35 in Section 8 of this report.

37. See endnote 3 in Chapter 8 of this report.

38. See endnote 4 in Chapter 8 of this report.

39. The analysis required by law differs for Nuclear Nonproliferation controls. It is governed by the Nuclear Nonproliferation Act of 1978. Therefore, the headings under this section differ from the rest of the report.